

EXECUTIVE SUMMARY LETTER

Prospective Offerors:

Through the issuance of this Program Opportunity Notice (PON), the U.S. Department of Energy's (DOE) Federal Energy Technology Center (FETC) solicits demonstration proposals for technologies that will ultimately reduce the technical risks and the economic uncertainty standing in the way of increased development of the low-permeability (tight) gas resources of the Rocky Mountain and Mid-Continent gas basins.

The DOE is soliciting cost-shared proposals for financial assistance [cooperative agreements] to conduct projects that demonstrate increased efficiency through field tests of improved or emerging Exploration and Production (E&P) technologies.

This executive summary letter is not an integral part of the PON, which is a self-contained stand-alone document. In the event of any conflict between the contents of this letter and the attached PON, the PON language will prevail.

DOE's intent is to solicit the submission of proposals from individuals, private entities (including educational institutions, not-for-profit or nonprofit, and commercial and industrial organizations), and public entities (including state and local governments, but not Federal entities).

Proposals must be submitted in accordance with the instructions in Section 4. The proposals must be received at the place designated in Section 2.5, "Time, Date and Place Proposals Are Due" not later than 3:00 p.m., local time, Pittsburgh, Pennsylvania, on **June 23, 1997**.

Applications should be prepared with maximum economy, consistent with this PON, to ensure that the resources of both applicants and evaluators are efficiently utilized. This PON does not commit the Government to pay costs incurred in the submission of an application or in making studies for its preparation. DOE's policy is to discourage "brochuremanship" and unnecessarily costly application preparation.

You are advised that applications submitted under this solicitation are subject to technical review and evaluation utilizing DOE personnel. Furthermore, certain application material submitted may become subject to disclosure to the public pursuant to the provisions of the Freedom of Information Act, as amended. See Section 2.16, Proprietary Data or Confidential Business Information, for guidance on proper marking of application information.

DOE anticipates that one [1] to three [3] financial assistance awards with minimum fifty percent (50%) cost participation (cooperative agreements) will be made under this PON. The total amount of DOE FY1997 funds is \$1.2M.

The Government reserves the right, without limitation, to accept or reject any or all proposals regardless of the terms of the original proposal, and to request additional clarifying information, including cost and pricing data. Therefore, each application should be submitted on the most

favorable terms from a technical and cost standpoint that the offeror can submit to DOE. DOE, however, may select a proposal for negotiations without conducting discussions with the offeror.

Offerors are advised that projects selected for financial assistance as a result of this PON will be subject to the requirements of the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321 et seq.) and related DOE compliance procedures.

The designated Government Representative for this PON is Mary Beth Pearse. All communications should cite the PON number and be directed to her attention at the address prescribed in Section 2.4, "DOE Issuing Office."

Selection is anticipated in late July 1997, with awards negotiated by September 1997.

Sincerely,

Contracting Officer

PROGRAM OPPORTUNITY NOTICE NO. DE-PN26-97FT34181

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A MODEL COOPERATIVE AGREEMENT

ATTACHMENTS TO APPENDIX A:

- A STATEMENT OF WORK (TO BE PROVIDED BY OFFEROR)
- B INTELLECTUAL PROPERTY PROVISIONS
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OBJECTIVES

1.1 INTRODUCTION AND BACKGROUND

The overall objective of this Program Opportunity Notice (PON) is to solicit proposals to conduct cost-shared demonstration projects that will ultimately reduce the technical risks and the economic uncertainty standing in the way of increased development of the low-permeability (tight) gas resources of the Rocky Mountain and Mid-Continent gas basins. This will be done by demonstrating increased efficiency through field tests of improved or emerging Exploration and Production (E&P) technologies. The goal is to encourage development of the tight gas resources through testing E&P technologies in priority tight gas basins.

The Rocky Mountain and Mid-Continent low permeability fractured gas basins contain huge amounts of gas in place in sandstone reservoirs with very low permeability and complex geology. These large energy resources have not been developed on a large scale, primarily due to high E&P risks resulting in poor development economics. To date, tight gas development prospects and regional potential are not well defined, and drilling has not often resulted in commercial gas production rates. The intent of this PON is to promote the application of technology to develop this resource.

This PON provides for advanced diagnostic methods to be extrapolated to basins where the technology has not been proven. These tests will be performed in industry wells of opportunity.

The Priority Basin project (s) will include "piggy-backed" E&P technology field demonstrations executed in industry wells of opportunity located in one or more Rocky Mountain and Mid-Continent basins. Rocky Mountain gas basins to be considered under this program are limited to the Wind River, Big Horn, Crazy Mountains, Powder River, San Juan, and Uinta. Mid-Continent region basins are limited to the Ouachita, Anadarko, Arkoma,

Illinois, and Fort Worth and to the Travis Peak and Cotton Valley trends. Field tests can include, but are not limited to, remote sensing, high resolution aeromag, 2-D and 3-D seismic, downhole seismic application, special geophysical logs, cutting special cores, performing special well tests, and conducting reservoir-specific stimulation treatments and monitoring. No fundamental research efforts of technologies will be accepted.

Therefore, the Department of Energy (DOE), Federal Energy Technology Center (FETC), pursuant to 10 CFR 600.6(a)(3), is conducting this competitive solicitation with the purpose of awarding one (1) to three (3) financial assistance cooperative agreements on an unrestricted eligibility basis (except for no Federal entities being eligible) and invites all responsible individuals, corporations, non-profit organizations, educational institutions, and state or local Governments to submit applications for this demonstration program.

DOE has \$1.2 million in FY97 funding available.

1.2 PROJECT STRUCTURE

It is anticipated that one (1) to three (3) projects, with a total value estimated at \$2.4 million, including cost sharing, will be funded under this solicitation. The project(s) are expected to have a total period of performance of approximately 18 months. These estimates are provided to advise offerors of the size and nature of the project(s) that DOE is interested in funding so that offerors may prepare their proposals accordingly.

All proposals must contain a single, detailed Statement of Work (SOW) (Ref. Section 4.2.1.1(f)) that addresses how the project objectives will be met. The SOW must contain a clear, concise description of all activities to be completed during project performance.

1.3 DOE'S FINANCIAL ROLE

DOE uses the PON type of solicitation when it seeks to encourage the submission of proposals that will accelerate the demonstration of the technical, operational, economic, or commercial feasibility of particular energy technologies.

Furthermore, the DOE anticipates making multiple cost-sharing financial assistance (cooperative agreement) awards made pursuant to the guidelines in Section 3001 and 3002, Title XXX of the Energy Policy Act of 1992 (EPACT).

The maximum DOE cost share shall be fifty percent (50.0%) of total allowable costs of the **technology to be demonstrated**. DOE does not desire to share in the cost of equipment and expects the use of existing, promising wells.

TERMS, CONDITIONS AND NOTICES TO OFFERORS

2.1 CONTENT OF RESULTING AGREEMENT

Any successfully completed negotiation concluded under this PON will result in a cost-shared Financial Assistance Award based on the Model Cooperative Agreement provided in Appendix A.

2.2 PROGRAM OPPORTUNITY NOTICE (PON) NUMBER

DE-PN26-97FT34181

2.3 DATE OF PON ISSUANCE

May 23, 1997

2.4 DOE ISSUING OFFICE

U.S. Department of Energy
Federal Energy Technology Center
ATTN: Mary Beth Pearse
626 Cochrans Mill Rd., MS 921-143
Pittsburgh, PA 15236-0940

FAX No.: (412) 892-6216
Internet Address pearse@fetc.doe.gov

2.5 TIME, DATE, AND PLACE PROPOSALS ARE DUE

- a) Proposals that have been mailed/sent must be received at the address given in Section 2.4 above NO LATER THAN 3:00 p.m. (local time), in Pittsburgh, Pennsylvania, on **June 23, 1997** and marked "**PON NO.: DE-PN26-97FT34181**". (CAUTION: See Section 2.19, "Late Submissions, Modifications, and Withdrawals of Proposals").
- b) Handcarried proposals will be accepted at the address shown below. Offerors electing to handcarry their proposal are directed to Paragraph "c" below.

HANDCARRY TO: U. S. Department of Energy
Federal Energy Technology Center
Wallace Road, Building 921, Room 107
Bruceton, Allegheny County, PA 15236-0940
ATTENTION: Mary Beth Pearse

- c) Handcarried Proposals: It is not possible to deliver this package to Building 921, Room 107, Wallace Road outside of the hours of 7:00 a.m. to 3:30 p.m., Monday through Friday. Delivery to any other location, including the site central delivery area, may result in late receipt in Building 921, Room 107, and is strongly discouraged. If the offeror elects to forward the proposal by means other than the U.S. Mail, he assumes the full responsibility of ensuring that the proposal is received by the date and time specified above.

2.6 AVAILABILITY OF FUNDS

DOE has \$1.2 million in FY97 funding available for this PON.

2.7 PROPOSAL ACCEPTANCE PERIOD

The minimum proposal acceptance period must be at least 60 days after the deadline for receipt of proposals, as stated in Section 2.5, "Time, Date, and Place Proposals are Due."

2.8 FALSE STATEMENTS

Proposals must provide full, accurate, and complete information as required by this PON (including all appendices). The penalties for making false statements in proposals are prescribed in 18 U.S.C. 1001.

2.9 EXPENSES RELATED TO PROPOSAL SUBMISSION

This PON does not commit the Government to pay any costs incurred in the submission of a proposal. Such costs include, but are not limited to, those for studies, designs, or services necessary for the preparation of a proposal.

2.10 AMENDMENTS TO THE PON

The only method by which any term of this PON may be modified is by an express, formal amendment generated by the issuing office. Amendments will be released on the DOE FETC Homepage at <http://www.fetc.doe.gov/business.html> (click on "Read Procurement Notices," and then "solicitations"). The offeror is advised to periodically visit the DOE FETC homepage for any amendments. No other communication will modify or supersede the terms of this PON. Receipt of an amendment to the PON by an

offeror must be acknowledged (See Section 2.11, "Acknowledgement of Amendments to the PON").

2.11 ACKNOWLEDGEMENT OF AMENDMENTS TO THE PON

- (a) If this solicitation is amended, then all terms and conditions that are not modified remain unchanged.
- (b) Offerors shall acknowledge receipt of any amendment to this solicitation by signing and returning the amendment via letter, telegram, or facsimile. The Government must receive the Acknowledgement by the time specified for receipt of proposals.

2.12 NOTICE OF RIGHT TO REQUEST A PATENT WAIVER

Offerors, in accordance with applicable statutes and DOE Regulations (48 CFR 952.227-84), have the right to request, in advance of or within 30 days after the effective date of the Cooperative Agreement, a waiver of all or any part of the rights of the United States in subject inventions. Small business firms and domestic nonprofit organizations normally will receive the Patent Rights clause of 48 CFR 952.227-11 which permits the recipient to retain title to subject inventions, except in contracts involving exceptional circumstances or intelligence activities. Therefore small business firms and nonprofit organizations normally need not request a waiver.

2.13 DISCUSSIONS WITH OFFERORS

DOE reserves the right, without limitation, to accept or reject any or all proposals or any portion of a proposal; to request additional clarifying information; and/or to conduct discussions with offerors at its own discretion.

It is DOE's intent, however, to make a selection under this solicitation based on the initial proposals received without discussions with the offerors. Each proposal, therefore, should be complete from technical, business & management, funding, and cost standpoints.

2.14 SELECTION NOTIFICATIONS

Written notice will be provided to both successful and unsuccessful offerors after selection. Information about the selected project will be made publicly available.

2.15 DISPOSITION OF PROPOSALS

Proposals will not be returned unless they are withdrawn in accordance with Section 2.19, "Late Submissions, Modifications, and Withdrawals of Proposals," but will be either retained by DOE for official record purposes or destroyed.

2.16 PROPRIETARY DATA OR CONFIDENTIAL BUSINESS INFORMATION

DOE is required to withhold from public disclosure, subject to the Freedom of Information Act (FOIA), portions of the proposal volumes (Technical/Environmental and Business/Financial) that contain trade secrets and privileged or confidential commercial or financial information, provided such portions have been identified as indicated in the following instructions.

The offeror must identify each proposal volume page (including each line or paragraph) containing data that the offeror would like withheld from public disclosure. The cover sheet of the proposal volume must contain the following notice:

NOTICE

The data contained on pages _____ of this proposal are submitted in confidence and contain trade secrets or privileged or confidential commercial and financial information. Such data may be used or disclosed only for evaluation purposes. If a Cooperative Agreement is awarded to this offeror as a result of or in connection with the submission of this proposal, the Government shall have the right to use or disclose data herein to the extent provided in the Cooperative Agreement. This restriction does not limit the Government's right to use or disclose data obtained without restriction from any source, including the offeror.

The offeror must mark every sheet that contains data that it wishes to restrict with the following legend:

"Use or disclosure of the proposal data in lines specifically identified by asterisk (*) are subject to the restriction on the cover sheet of this proposal."

If there is a request under the Freedom of Information Act (5 U.S.C. § 552) (FOIA) for any data contained in a proposal volume, DOE's response to the request will be made by following procedures set forth in 10 CFR § 1004.11. After receiving a FOIA request, DOE may ask the offeror to explain why it believes the requested information should be withheld. The offeror's prompt cooperation will ensure that DOE makes a fully informed and justifiable decision on the FOIA request.

2.17 PROPOSAL PACKAGING

Each of the two (2) proposal volumes shall be physically separate and entitled as listed below. Six (6) copies are required of each proposal volume (original, to be identified as "Copy 1," plus five (5) copies, to be identified as "Copies 2 through 6"). The required packaging and grouping are:

- o Package 1*: + Copy 1 of Volume I, Technical/Environmental Proposal,
+ Copy 1 of Volume II, Business/Financial Proposal.
- o Package 2: Copies 2 through 6 of Volume I, Technical/Environmental Proposal.
- o Package 3: Copies 2 through 6 of Volume II, Business/Financial Proposal.

* Note: All documents that contain original signatures must be in Package 1.

Each group shown above must be packaged individually; however, they may be shipped in a single package. If multiple shipping cartons are used, the offeror should mark the group number on the outside of each package. The offeror must provide the information stated in Section 2.5, "Time, Date, and Place Proposals are Due."

2.18 UNNECESSARILY ELABORATE PROPOSALS

Unnecessarily elaborate brochures or other presentations beyond those sufficient to present a complete and effective response to this solicitation are not desired and may be construed as an indication of the offeror's lack of cost consciousness. Elaborate art work, expensive paper and bindings, and expensive visual and other presentation aids are neither necessary nor wanted.

2.19 LATE SUBMISSIONS, MODIFICATIONS, AND WITHDRAWALS OF PROPOSALS

- (a) Any proposal received at the office designated in the solicitation after the exact time and date specified for receipt will not be considered unless it is received before selection is made and it:
 - (1) was sent by registered or certified mail not later than the fifth calendar day before the date specified for receipt of proposals (e.g., a proposal

submitted in response to a solicitation requiring receipt of proposals by the 20th of the month must have been mailed by the 15th);

- (2) was sent by mail or, if authorized by the solicitation, was sent by telegram or via facsimile and is determined by the Government that the late receipt was due solely to mishandling by the Government after receipt at the Government installation;
 - (3) was sent by U.S. Postal Service Express Mail Next Day Service - Post Office to Addressee, not later than 5:00 P.M. at the place of mailing two working days prior to the date specified for receipt of proposals. The term "working days" excludes weekends and U.S. Federal holidays; or
 - (4) is the only proposal received.
- (b) Any modification or withdrawal of a proposal is subject to the same conditions as in paragraph (a) of this provision.
- (c) The only acceptable evidence to establish the date of mailing of a late proposal, modification, or withdrawal sent either by registered or certified mail is the U.S. or Canadian Postal Service postmark both on the envelope or wrapper and on the original receipt from the U.S. or Canadian Postal Service. Both postmarks must show a legible date or the proposal, modification, or withdrawal shall be processed as if mailed late. "Postmark" means a printed, stamped, or otherwise placed impression (exclusive of a postage meter machine impression) that is readily identifiable without further action as having been supplied and affixed by employees of the U.S. or Canadian Postal Service on the date of mailing. Therefore, offerors should request the postal

clerk to place a legible hand cancellation bull's eye postmark on both the receipt and the envelope or wrapper.

- (d) The only acceptable evidence to establish the time of receipt at the Government installation is the time/date stamp of that installation on the proposal wrapper or other documentary evidence of receipt maintained by the installation.
- (e) The only acceptable evidence to establish the date of mailing of a late proposal, modification, or withdrawal sent by U.S. Postal Service Express Mail Next Day Service - Post Office to Addressee is the date entered by the post office receiving clerk on the "Express Mail Next Day Service - Post Office to Addressee" label and the postmark on the envelope or wrapper and on the original receipt from the U.S. Postal Service. "Postmark" has the same meaning as defined in paragraph (c) of this provision, excluding postmarks of the Canadian Postal Service. Therefore, offerors should request the postal clerk to place a legible hand cancellation bull's eye postmark on both the receipt and the envelope or wrapper.
- (f) Notwithstanding paragraph (a) of this provision, a late modification of an otherwise successful proposal that makes its terms more favorable to the Government will be considered at any time it is received and may be accepted.
- (g) Proposals may be withdrawn by written notice or telegram (including mailgram) received at any time before the exact time set for receipt of proposals. A proposal may be withdrawn in person by an offeror or its authorized representative if, before the exact time set for receipt of proposals, the identity of the person requesting withdrawal is established and the person signs a receipt for the proposal.

2.20 EXPLANATION TO PROSPECTIVE OFFERORS

Any prospective offeror desiring an explanation or interpretation of the solicitation must request it in writing, via e-mail at “pearse@fetc.doe.gov, or fax at (412) 892-6216 (no phone calls please) soon enough to allow a reply to reach all prospective offerors before the submission of their proposals. Any information given to a prospective offeror concerning a solicitation will be furnished promptly to all other prospective offerors as an amendment of the solicitation if that information is necessary in submitting proposals or if the lack of it would be prejudicial to any other prospective offerors.

2.21 SELECTION OF PROPOSALS

- (a) Selection will be made based on the evaluation criteria set forth in Section 3 hereof.
- (b) The Government may (1) reject any or all proposals, (2) accept for negotiation any proposal, in whole or in part, and (3) waive informalities and minor irregularities in proposals received.
- (c) It is DOE's intent, however, to make a selection under this solicitation based on the initial proposals received without discussions with the offerors. Therefore, each initial proposal should contain the offeror's best terms from a technical, environmental, business and financial standpoint.
- (d) Unless a written notice withdrawing the proposal has been received, the Government may select a proposal for negotiations and may make an award of financial assistance during the proposal acceptance period (See Section 2.7, “Proposal Acceptance Period”).

2.22 RIGHTS IN TECHNICAL DATA SOLICITATION INSTRUCTION

The section of this solicitation that describes the work to be performed also sets forth DOE's known requirements for technical data. The Additional Technical Data Requirements clause, if included in this solicitation, provides the Government with the option to order additional technical data, the requirements for which are not known at the time of award. There is, however, a built-in limitation on the kind of technical data that may be required. This limitation provides that the Recipient may withhold delivery of proprietary data. Accordingly, it is necessary that your proposal state that the work to be performed and the known requirements for technical data as set forth in the solicitation have been reviewed, and either state that, to the best of your knowledge, no data will be withheld, or submit a list identifying the proprietary data which, to the best of your knowledge, will likely be used in the performance of the Cooperative Agreement and will be withheld.

Attention is directed to Article XIII "Rights in Intellectual Property" of the Model Cooperative Agreement (Appendix A) for additional information.

2.23 EPACT NOTICE - LIMITS ON PARTICIPATION BY COMPANIES

Section 2306 of the Energy Policy Act of 1992 (Public Law 102-486) contains eligibility requirements for companies seeking to obtain financial assistance under this PON.

Specifically, the statute provides:

A Company shall be eligible to receive financial assistance under titles XX through XXIII of this Act only if--

- (1) the Secretary finds that the company's participation in any program under such titles would be in the economic interest of the United States, as evidenced by investments in the United States in research,

development, and manufacturing (including, for example, the manufacture of major components or subassemblies in the United States); significant contributions to employment in the United States; an agreement with respect to any technology arising from assistance provided under this section to promote the manufacture within the United States of products resulting from that technology (taking into account the goals of promoting the competitiveness of United States industry), and to procure parts and materials from competitive suppliers; and

- (2) either--
 - (A) the company is a United States-owned company; or
 - (B) the Secretary finds that the company is incorporated in the United States and has a parent company that is incorporated in a country which affords to United States-owned companies opportunities, comparable to those afforded to any other company, to participate in any joint venture similar to those authorized under this Act; affords to United States-owned companies local investment opportunities comparable to those afforded to any other company; and affords adequate and effective protection for the intellectual property rights of United States-owned companies.

Prior to award of a Cooperative Agreement, the applicant selected under this solicitation will be required to submit information to enable the DOE to make the determinations required under Section 2306.

3. EVALUATION CRITERIA

3.1 INTRODUCTION

This section of the PON presents to the offeror the actual evaluation scheme, as well as the individual criteria which will be used by DOE to evaluate and score a proposal. It is important to note that Section 3 contains the corresponding, specific directions that offerors must follow in preparing their proposals in order to ensure maximum consideration.

The prime consideration in the evaluation of proposals is to determine which proposal's technical approach offers the greatest likelihood of success.

3.2 QUALIFICATION

In order to qualify, a proposal must meet each of the following Qualification Criteria:

- (a) The proposal must be signed by a corporate or company official of the proposing organization who is authorized to legally bind the organization to the performance of the ensuing cooperative agreement in its entirety.
- (b) Consistent with Section 3002, Title XXX of the Energy Policy Act of 1992 and DEAR 917.7001, the DOE has determined that cost participation shall be required. The offeror must agree, and the proposal must clearly state, that a minimum cost participation of 50% of the total project value, with the Government funding **only** the costs of the technology being tested, will be provided.
- (c) Each member of the proposed project team must be identified, and written commitments furnished that clearly state that they will fulfill their respective roles in carrying out the SOW.
- (d) Offerors must demonstrate that they have access to wells of opportunity in the Rocky Mountain and/or Mid-Continent basins in order to perform the proposed tests. The offeror must clearly state that it has access to the well(s) of opportunity identified.

3.3 COMPREHENSIVE EVALUATION AND FINAL RANKING

3.3.1 General

Each application which clears qualification review will be comprehensively evaluated separately according to the criteria listed in this section.

The applicant's budget (Volume II - Business/Financial) will be evaluated by DOE only to assess realism and determine reasonableness of proposed costs. The applicant's budget will not be point scored nor adjectivally rated.

3.3.2 Technical/Environmental Proposals

Technical/Environmental Proposals submitted in response to this PON will be evaluated and point-scored in accordance with criteria (1) through (3), below, which are listed in descending order of importance. The relative importance of each criterion is indicated by the maximum point score (as noted in parentheses) allocated to each criterion. The necessary information to be submitted to satisfy the evaluation requirements for each criterion is specified below for each criterion.

1. TECHNICAL APPROACH AND UNDERSTANDING OF THE OBJECTIVES
(Maximum 40 points)

Soundness and applicability of technical approach in meeting the goals of the Advanced Diagnostics Tests in Priority Basins Program, identification of potential problems that may be encountered and their proposed solutions. Completeness and conciseness of the offeror's understanding of the proposed testing and production technologies being performed in new or existing tight gas wells in the Rocky Mountain and Mid-Continent regions. Reasonableness of labor categories, labor hours, schedule and milestones, and travel. Type, quality, availability, and applicability of the proposed equipment, materials, and facilities. Soundness and completeness of the SOW.

2. RELATED CORPORATE EXPERIENCE (Maximum 30 points)

Extent of prior experience in managing projects that are similar in type, size, and complexity. Adequacy of organizational experience in the execution and analysis of tight gas reservoir development operations, specifically in the Rocky Mountain and Mid-Continent basins. Demonstrated technical experience in the analysis and integration of data from field operations. Likelihood of offeror to apply results to field development and to successfully disseminate project results.

3. ORGANIZATION CAPABILITIES AND PERSONNEL EXPERIENCE
(Maximum 30 points)

Capability of the organization to successfully perform the SOW objectives.
Appropriateness, quality and effectiveness of project organizational structure.
Qualifications of the proposed personnel, subcontractors, and consultants as they relate to this project. Availability of proposed personnel. Motivation of organization and priority of proposed effort relative to other commitments.
Demonstrated commitment in developing the low-permeability gas resources in the low-permeability gas resources in the Rocky Mountain and Mid-Continent basins.

3.3.3 Cost Criteria.

The costs proposed will be evaluated in accordance with the following criteria:

1. Reasonableness and appropriateness of cost.
2. Evaluated probable cost to the Government.
3. Percentage of cost participation offered: To be considered for an award (as stated above), an offeror must cost share at least 50 percent of the total estimated costs.

Cost share will be evaluated on the total percentage proposed, on the allowability and applicability of the form of participation, and on the reasonability and meaningfulness of the proposed cost share.
Considering the nature of the program, a cost share of more than 50 percent is encouraged. If, as a result of the technical evaluation and the application of the first two cost evaluation criteria, two or more proposals are considered to be essentially equal, the percentage of cost share relative to the proposed cost may be the deciding factor in making a selection for award.

Selection of an offeror for award may involve a determination as to whether an otherwise technically superior proposal is worth any additional associated cost.

- 3.3.4 Program Policy Factors - Program policy factors are those factors that are not indicative of the offeror's individual merit, but are relevant and essential to the process of choosing which proposal(s) will best achieve the program goals. The following program policy factors shall be considered.

- o It may be desirable to select project(s) for award that represent novel or innovative technical approaches.
- o It may be desirable to select project(s) for award which will complement or enhance ongoing or planned gas well drilling and completion efforts.
- o It may be desirable to select project(s) for award of less technical merit than other project(s), if such a selection will optimize use of available funds by allowing more projects to be supported while not being detrimental to the overall objectives of the program.
- o It may be desirable to select project(s) for award of less technical merit than other project(s), if such a selection will improve the geographic distribution of test wells, either within different formations of the same priority basin, or over a number of priority basins.
- o It may be desirable to select project(s) for award of less technical merit than other project(s), if such a selection will improve the participation of small business in this Priority Basins Demonstration Project.

4. PROPOSAL PREPARATION INSTRUCTIONS

Proposals must conform to the PON provision entitled “Proposal Packaging” (Section 2.17).

Proposals must be prepared in accordance with the instructions provided below. All information prescribed by the instructions must be included.

4.1 GUIDELINES FOR PREPARING PROPOSALS

4.1.1 General

The following general format should be used in preparing all documents:

- (a) Minimum margins (top, bottom, left and right) of one (1) inch on 8 1/2 x 11-inch paper;
- (b) Font size shall be a minimum of 12 points;
- (c) Each volume shall be appropriately paginated.
- (d) **NO COST INFORMATION IS TO BE INCLUDED IN THE TECHNICAL PROPOSAL.** Where estimated man-hours will provide clarity, they shall be quoted in man-hour figures only, with no indication as to the cost of these man-hours.

4.1.2 Federal Cost Principles/Cost Sharing/In-Kind Contributions (10 CFR 600.123 and .127)

The **Federal Cost Principles** applicable to specific types of recipients, subrecipients, and contractors under grants and subawards are as follows:

(a) Institutions of Higher Education

Office of Management and Budget (OMB) Circular A-21, "Cost Principles Applicable to Grants, Contracts and Other Agreements with Institutions of Higher

Education," is applicable to both public and private colleges and universities.

(b) State and Local Governments and Indian Tribal Governments

OMB Circular A-87, "Cost Principles Applicable to Grants, Contracts and Other Agreements with State and Local Governments," is applicable to State, Local and Indian tribal governments and shall also be used to the extent appropriate for foreign governments.

(c) Nonprofit Organizations and Individuals

OMB Circular A-122 "Cost Principles Applicable to Grants, Contracts and other Agreements with Nonprofit Organizations", applies to nonprofit organizations other than a non-profit institution of higher education or hospital. However, a few nonprofit organizations, as specifically listed in OMB Circular A-122, are subject to the commercial cost principles specified in subparagraph (d), below. OMB Circular A-122 shall also apply to grants to individuals.

(d) Commercial Firms and Certain Nonprofit Organizations

Title 48 CFR Subpart 31.2 (Federal Acquisition Regulations) "Contracts with Commercial Organizations," as supplemented by 45 CFR Subpart 931.2 (DOE Acquisition Regulations), applies to for-profit organizations (other than for-profit hospitals), including corporations, partnerships and sole proprietorships.

Copies of OMB publications listed in subparagraphs (a)-(d) above may be obtained from the Office of Management and Budget, Office of Administration, Publications Unit, Washington, DC 20503.

Cost Sharing (10 CFR 600.123) is a generic term denoting any situation where the Government does not fully reimburse the applicant for all allowable costs necessary to accomplish the project or effort. Cost-sharing may be in various forms or

combinations, which includes but is not limited to cash outlays, real property (or interest therein) needed for the project, personal property (equipment) or services, cost matching, or other in-kind sharing. Cost sharing may be accomplished by a contribution of either direct or indirect costs provided such costs are otherwise allowable in accordance with the applicable cost principles. Allowable costs which are absorbed by the applicant as part of its cost share may not be charged directly or indirectly to the Federal Government under other contracts, agreements or grants. The offeror's cost sharing may be provided by the offeror, or other companies/associations with which it has contracts, subgrants or other binding arrangements to perform the project. Cost sharing may include the value of contributions of other non-Federal sources, provided the contributions were not previously obtained free of charge from Federal sources.

In-Kind Contributions represent noncash contributions which are directly beneficial, specifically identifiable and necessary to the performance of the project. Most importantly, in-kind contributions must be verifiable from the offeror's or third party's books and records. The value of any noncash contribution shall be established by the DOE after consultation with the offeror and/or third party donor; **however, adequate supporting documentation must be provided in the offer for the estimated value of any noncash contribution (applicant or third party).**

4.2 CONTENT OF OFFERS

4.2.1 VOLUME I - TECHNICAL/ENVIRONMENTAL

4.2.1.1 The **technical** elements comprising Volume I - Technical/Environmental (in the order in which they are to be presented), are as follows:

(a) Proprietary Information Disclosure Statement (if applicable)(see Section 2.16, “Proprietary Data or Confidential Business Information”).

(b) Table of Contents

(c) Public Abstract - The abstract shall be less than or equal to one (1) single-spaced page.

*(d) Introduction (double-spaced, identify as Page 1)

*(e) Scientific discussion (double-spaced). Provide a detailed description of the program objectives toward which the offer is addressed and a detailed presentation of the research work and procedures that will be conducted to achieve these objectives; provide all necessary information to satisfy each of the technical evaluation requirements specified in Section 3.3 of this solicitation.

*(f) Concise Statement of Work (SOW) proposed (double-spaced) prepared in the following format:

THE STATEMENT OF WORK IS LIMITED TO FIVE (5) PAGES

(i) Title of Work to Be Performed: Insert title of work to be performed. Be concise and descriptive (e.g., "Advanced Diagnostics in Rocky Mountain Gas Basin").

(ii) Objectives : Include one paragraph on the overall objective(s) of the work taking into consideration the objectives described in Section 1.0. Include a brief description of the basins to be drilled,

technologies to be utilized, etc.

- (iii) Scope of Work : This section should not exceed one-half page and should summarize the effort and approach to achieve the objective(s) of the work. The offeror shall furnish all personnel, material, supplies, and services necessary to perform the effort.
 - (iv) Tasks to be Performed : Tasks, concisely written, should be provided in a logical sequence. Each task should be numbered and titled. Decision points should be identified as appropriate.
 - (v) Deliverables : Reporting Requirements for awards resulting from PON DE-PN26-97FT34181 include those identified in Attachment C to Appendix A. Specific reports and the frequency of their submission will be included in any award document resulting from this solicitation.
 - (vi) Briefings: Provide a list of project briefings including purpose, schedule, location, and number of travelers. The Recipient should anticipate developing a technical paper and making a presentation at a DOE Contractor Review Meeting typically held every 18 months in either the Houston, TX or Dallas, TX areas.
- *(g) Project Management Plan - The plan should provide, at a minimum, a well defined milestone chart and schedule and plan for communications among the partners and subcontractors (if applicable).
- *(h) Literature references (double-spaced)

The combined length of asterisked (*) items d, e, f, g, and h must not exceed forty (40), double-spaced pages, including figures, tables, etc. Figures and/or tables may be reduced and combined with text, provided that the figures/tables retain their legibility.

The offeror is cautioned that if the combined length of the items (d) through (h) exceed the page limitations, **only the first 40 pages** will be given to the reviewer(s), which would be detrimental to the comprehensive evaluation of the application's technical merit.

No materials shall be incorporated by reference. Any such material will not be considered in the evaluation process.

- (i) Appendix (single-spaced):
 - (1) Vitae. Provide a brief vitae for the Key Personnel;
 - (2) Publications. List publications pertinent to the proposed research;
 - (3) Facilities. Identify existing facilities, including private sector and/or specialized equipment, available for use in the proposed research;
 - (4) Past, Current, and Pending Support. Identify any past, current or pending support related to the proposed work, and include other DOE Program Offices or Government agencies to which the proposed work has been submitted, and;
 - 5) Other. Include letters of commitment from the private sector which clearly detail their specific involvement in the performance of the proposed SOW; resumes of proposed "consultants"; other relevant qualifications; etc.

4.2.1.2 The content of the **environmental** portion of the Technical/ Environmental volume is as follows:

The Environmental Questionnaire set forth as Appendix B shall be completed and made a part of the Technical/Environmental volume. The DOE has issued National Environmental Policy Act (NEPA) Implementing Regulations. The Questionnaire will

be used by DOE to determine the appropriate level of NEPA documentation.
Responses to the questionnaire will not be used in the selection process.

4.2.2 VOLUME II - BUSINESS/FINANCIAL.

Content. The elements comprising Volume II - Business/Financial (in the order in which they are to be presented), are as follows:

- (a) Application for Federal Assistance (FETC Form 4230.1), Appendix C, signed by an authorized representative of the submitting organization;
- (b) Proprietary Information Disclosure Statement (if applicable)(See Section 2.16, "Proprietary Data or Confidential Business Information").
- (c) Qualification Certification - Cost Sharing Percentages (See Appendix D);
- (d) Budget Request (See Appendix E). The Budget Request shall include (1) the Summary of Cost Elements by Task and by Year, (2) the Summary Financing Plan, (3) Summary of In-Kind Contributions, and (4) a "budget explanation" showing how costs are derived for each major cost element. The Summary of Cost Elements should include, as a minimum, the following information:
 - 1. **Labor.** Identify individual labor categories and man-hours or percentages of time/individual, including wage-rate or salary used in the computation of cost and any applicable escalation factor(s);
 - 2. **Fringe Benefits.** Provide the estimated cost of fringe benefits if calculated separately from Labor. If applicable, provide a current Rate Agreement which

supports the proposed fringe benefit rate, or explain how the rate was computed;

3. **Travel.** Itemize each trip as to destination, number of travelers and duration. Rates used to estimate airfare, lodging, meals and incidental expenses, and ground transportation costs should be provided. Include travel costs for attendance by the Key Personnel to the DOE Contractor Review Meeting (See Section 4.2.1.1(f)(vi))

4. **Contracts, Subgrants and/or Consultants.** Identify proposed contracts/subgrants to other organizations and their relative cost, providing the same level of cost detail as that required of the applicant (i.e., labor, benefits, supplies, etc.). If a consultant is proposed, provide the hourly/daily rate and its basis, and certify whether or not the proposed rate is the consultant's "most favored customer" rate. Furnish resumes or similar information regarding qualifications or experience.;

5. **Equipment, Materials and Supplies.** Elements of cost should be itemized to the extent possible and the basis of the proposed prices substantiated as to written/verbal vendor quotes, catalog pricing, etc. Copies of written quotes and/or the vendor catalog pages should be provided to substantiate costs;

6. **Other Direct Costs (ODC's).** The amount and basis for proposed costs not otherwise shown should be included here;

7. **Indirect Costs.** Provide current Rate Agreement which substantiates proposed indirect rates with the Federal Government. If no such Rate Agreement exists, explain how the rates were derived;

8. **Cost Participation**, if any, is considered contributions (cash or in-kind) by the offeror, private sector or other third-party co-funder. The Budget Request and the detailed budget breakdown must be consistent and supportable as to source and type of cost-participation (reference Section 4.1.2);

9. **Total Amount Requested from DOE**, should not exceed maximum funding limits as set forth in Section 4.0;

10. **Total Project Costs.** Total allowable project costs include both costs to be reimbursed by DOE (**Please note that DOE will fund only the costs of the technology being tested**) and costs to be shared by the applicant or third parties; thus, total project costs must reflect all costs to be incurred in the performance of the proposed project. The total costs (as well as individual elements of cost) should include the costs to be reimbursed by the DOE as well as any cost participation by the proposing organization or a third party;

- (e) Identify past, current, and pending support related to the work proposed. Include other DOE Program Offices or Government agencies to which the proposed work has been submitted;
- (f) Acknowledgement of Amendments (if any). Receipt of any Amendments to the Program Solicitation must be acknowledged by listing the amendment number and date of issuance;
- (g) Assurances - Non Construction Programs (SF 424B) (Appendix F) signed by an authorized representative of the submitting organization. Assurances must also be provided by any other collaborators participating in the proposed effort;

- (h) Letters of Commitment from Private Sector Collaborators. Commitment letters should provide evidence of any proposed 3rd party financial contributions.

- (i) Government-Furnished Property (as prescribed in 10 CFR 600.130-.137).

If there is no government furnished property required to perform the proposed project, a statement to that effect should be provided in this proposal volume.

- (j) NOTE: This section applies only in the situation where the proposal is contingent on the use of Government-furnished equipment.

- (1) Unless otherwise stated, the offeror is expected to furnish all property (including but not limited to facilities, equipment, special tooling, and material) necessary for the performance of the work defined in this solicitation.
- (2) Indicate in this Volume whether or not the proposal is based on the use of Government property. If the offeror intends to use Government-furnished property to perform the work,(whether or not such property is currently in the possession of the offeror), the particulars should be provided in a separate attachment to this volume, along with a statement signed by an executive corporate official (or the equivalent in a non-corporate entity) which:
 - a. Expresses the offeror's unwillingness or financial inability to acquire the necessary property with the offeror's resources; or
 - b. Explains that time will not allow the offeror to make the necessary

arrangements to obtain timely delivery of such property to meet the Government's requirements even though the offeror is willing and financially able to acquire the property. Such an explanation is to include cost-benefit studies that treat lease versus buy versus use of the Government property. In this case, existing Government property, if available, may be provided until the property acquired by the offeror is delivered, installed, etc.

- (3) In the event that the offeror proposes to use Government-furnished property to perform the work, the Government shall include in its evaluation of the proposal the cost of providing Government-furnished property including acquisition, transportation, installation, removal and disposition.

APPENDIX A

MODEL COOPERATIVE AGREEMENT

Under the authority of Public Law 95-91, 95-224 as amended by 97-258
subject to legislation, regulations and policies applicable to (cite legislative program title):

1. PROJECT TITLE Advanced Diagnostics Tests in Priority Basins			2. INSTRUMENT TYPE <input type="checkbox"/> GRANT <input checked="" type="checkbox"/> COOPERATIVE AGREEMENT	
3. RECIPIENT (Name, address, zip code, area code and telephone no.) TBD			4. INSTRUMENT NO. DE-FC26-97FTXXXXX	5. AMENDMENT NO. A000
			6. BUDGET PERIOD FROM: TBD THRU: TBD	7. PROJECT PERIOD FROM: TBD THRU: TBD
8. RECIPIENT PROJECT DIRECTOR (Name and telephone no.) TBD			10. TYPE OF AWARD <input checked="" type="checkbox"/> NEW <input type="checkbox"/> CONTINUATION <input type="checkbox"/> RENEWAL <input type="checkbox"/> REVISION <input type="checkbox"/> SUPPLEMENT	
9. RECIPIENT BUSINESS OFFICER (Name and telephone no.) TBD				
11. DOE PROJECT OFFICER (Name, address, zip code, telephone no.) Gary L Covatch (304) 285-4589 U.S. Department of Energy, Federal Energy Technology Center P.O. Box 880 MS E06, Morgantown, WV 26507-0880			12. ADMINISTERED BY (Name, address, zip code, telephone no.) Mary Beth J. Pearse, (412) 892-4949 U.S. Department of Energy Federal Energy Technology Center P.O. Box 10940, MS 921-143 Pittsburgh, Pennsylvania 15236-0940	
13. RECIPIENT TYPE <input type="checkbox"/> STATE GOV'T <input type="checkbox"/> INDIAN TRIBAL GOV'T <input type="checkbox"/> HOSPITAL <input type="checkbox"/> FOR PROFIT ORGANIZATION <input type="checkbox"/> INDIVIDUAL <input type="checkbox"/> LOCAL GOV'T <input type="checkbox"/> INSTITUTION OF HIGHER EDUCATION <input type="checkbox"/> OTHER NONPROFIT ORGANIZATION <input type="checkbox"/> C <input type="checkbox"/> P <input type="checkbox"/> SP <input type="checkbox"/> OTHER (Specify) _____				
14. ACCOUNTING AND APPROPRIATIONS DATA 26-97FT34181.000				15. EMPLOYER I.D. NUMBER/SSN
a. Appropriation Symbol	b. B&R Number	c. FT/AFP/OC	d. CFA Number	
16. BUDGET AND FUNDING INFORMATION				
a. CURRENT BUDGET PERIOD INFORMATION			b. CUMULATIVE DOE OBLIGATIONS	
(1) DOE Funds Obligated This Action \$			(1) This Budget Period \$	
(2) DOE Funds Authorized for Carry Over \$			[Total of lines a.(1) and a.(3)]	
(3) DOE Funds Previously Obligated in this Budget Period \$			(2) Prior Budget Periods \$	
(4) DOE Share of Total Approved Budget \$			(3) Project Period to Date \$	
(5) Recipient Share of Total Approved Budget \$			[Total of lines b.(1) and b.(2)]	
(6) Total Approved Budget \$				
17. TOTAL ESTIMATED COST OF PROJECT \$TBD (DOE - \$TBD) (This is the current estimated cost of the project. It is not a promise to award nor an authorization to expend funds in this amount.)				
18. AWARD/AGREEMENT TERMS AND CONDITIONS This award/agreement consists of this form plus the following: a. Special terms and conditions (if granted) or schedule, provisions, special concerns (if cooperative agreement) b. Applicable program regulations (specify) _____ (Date) _____ c. DOE Assistance Regulations, 10 CFR Part-600, as amended d. Application/proposal dated _____, <input type="checkbox"/> as submitted <input checked="" type="checkbox"/> with changes as negotiated.				
19. REMARKS Cost Sharing for this award is based upon the percentages of total costs specified in Article VII.				
20. EVIDENCE OF RECIPIENT ACCEPTANCE			21. AWARDED BY	
(Signature of Authorized Recipient Official)			(Signature)	
(Date)			(Date)	
(Name)			(Name)	
(Title)			Contracting Officer (Title)	

This Cooperative Agreement incorporates by reference the DOE Financial Assistance Rules, 10 CFR Part 600 Subparts A, B, and E, and the appropriate OMB Circulars and regulatory coverage.

This Agreement will be modified at the time of award, depending on the type of Recipient, to incorporate the appropriate OMB circular and regulatory coverage as follows:

(1) For profit making organizations

- o Patent Coverage; 10 CFR Part 600, DOE Financial Assistance Rules and 48 CFR Part 927 of the Department of Energy Acquisition Regulations
- o Cost Principles; 48 CFR 31.2 Federal Acquisition Regulations modified by 48 CFR 931.2 DOE Acquisition Regulations

(2) For non-profit organizations

- o Patents, 48 CFR 927
- o OMB Circular A-122, Cost Principles

(3) For State/Local Governments

- o 10 CFR 600 Subpart C, Uniform Administrative Requirements
- o Patents, 48 CFR 927
- o OMB Circular A-87, Cost Principles
- o OMB Circular A-128 and 10 CFR 600 Subpart E, Audits

(4) For Institutions of Higher Education

- o Patents, 48 CFR 927
- o OMB Circular A-21, Cost Principles

In addition, certain clauses contained herein cannot be completed until the nature and scope of the project selection are known. Any proposed exceptions or deviations taken with respect to the model cooperative agreement, or the attachments thereto, must be detailed in the Business/Financial Volume of the proposal.

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ARTICLE I. STATEMENT OF JOINT OBJECTIVES

(A) Primary Objective

The overall objective of this program is to conduct cost-shared demonstration projects that will ultimately reduce the technical risks and the economic uncertainty standing in the way of increased development of the low-permeability (tight) gas resources of the Rocky Mountain and Mid-Continent gas basins. This will be done by demonstrating increased efficiency through field tests of improved or emerging Exploration and Production (E&P) technologies. The goal is to encourage development of the tight gas resources through testing E&P technologies in priority tight gas basins.

(B) Technical Objectives of the Demonstration Project

The Rocky Mountain and Mid-Continent low permeability fractured gas basins contain huge amounts of gas in place in sandstone reservoirs with very low permeability and complex geology. These large energy resources have not been developed on a large scale, primarily due to high E&P risks resulting in poor development economics. To date, tight gas development prospects and regional potential are not well defined, and drilling has not often resulted in commercial gas production rates. It is the intention of this effort to promote the application of technology to develop this resource.

This Cooperative Agreement provides for advanced diagnostic methods to be extrapolated to basins where the technology has not been proven. These tests will be performed in industry wells of opportunity.

The Priority Basin project (s) will include "piggy-backed" E&P technology field demonstrations executed in industry wells of opportunity located in one or more Rocky Mountain and Mid-Continent basins. Rocky Mountain gas basins to be considered under this program are limited to the Wind River, Big Horn, Crazy Mountains, Powder River, San Juan, and Uinta. Mid-Continent region basins are limited to the Ouachita, Anadarko, Arkoma, Illinois, and Fort Worth and to the Travis Peak and Cotton Valley trends. Field tests shall include, but are not limited to, remote sensing, high resolution aeromag, 2-D and 3-D seismic, downhole seismic application, special geophysical logs, cutting special cores, performing special well tests, and conducting reservoir-specific stimulation treatments and monitoring.

(C) Legal Authority for this Cooperative Agreement

The expenditure of DOE funds under this Cooperative Agreement is subject to the requirements of Pub. L. 97-258 "Federal Grants and Cooperative Agreement Act." The parties shall comply with the applicable provisions of Subparts A, B, C, D and E of the DOE Financial Assistance Rules, 10 CFR Part 600.

ARTICLE II. DEFINITIONS

Award	Execution of a Cooperative Agreement between the DOE and the Recipient.
Awardee	Recipient.
Budget	The total value of all work proposed.
Budget Period	An interval of time into which the project is divided for budgeting and funding purposes.
Categorical Exclusions	A category of actions, as defined in 40 CFR 1508.4 and DOE NEPA guidelines at 10 CFR 1021.410, that do not individually or cumulatively have a significant effect on the human environment and for which neither an environmental assessment nor an environmental impact statement is required.
Contracting Officer	The DOE official authorized to execute awards and amendments thereto on behalf of DOE and who is responsible for the business management on behalf of the DOE and non-program matters relating to this Cooperative Agreement.
Contracting Officer's Representative	The DOE authorized representative for all technical matters pertaining to the Cooperative Agreement.
Cooperative Agreement	A financial assistance instrument used by DOE to transfer money or property when the principal purpose of the transaction is the accomplishment of a public purpose of support or stimulation authorized by Federal statute and substantial involvement is anticipated between DOE and the recipient during performance of the contemplated activity.
Cost-sharing	The portion (i.e., minimum percentage on an "as expended dollar-for dollar basis") of the allowable direct and indirect project costs required to be borne by the Recipient and the DOE.
Demonstration	A developed process at a scale sufficient to determine commercialization viability.
Department or DOE	The United States Department of Energy.

Financial Assistance	The transfer of money or property to a recipient or subrecipient to accomplish a public purpose of support or stimulation authorized by Federal statute.
In-Kind Contribution	The value of non-cash contribution provided by the Recipient or third parties. Examples would be the value of property, facilities, equipment, or service.
NEPA	The National Environmental Policy Act (42 U.S.C. 4321 et seq.).
Offeror	The organization signing the proposal and taking full responsibility for all members of its project team in the performance of the SOW.
POC	Proof of Concept
Recipient	The awardee of the Cooperative Agreement
SOW	Statement of Work.

ARTICLE III. SUBSTANTIAL INVOLVEMENT BETWEEN DOE AND THE RECIPIENT

(A) Recipient Role

The Recipient shall be responsible for all aspects of project performance as set forth in the SOW, Attachment A. All services, personnel, facilities, equipment, materials, and supplies shall be furnished by the Recipient, unless otherwise specified under this Cooperative Agreement.

The Recipient shall designate a Project Manager who shall serve as its authorized representative for the technical and administrative elements of all work to be performed under this Cooperative Agreement. The Project Manager shall be the single authorized point of contact for all communications between the Recipient and DOE.

(B) DOE Role

DOE shall monitor the Recipient's progress in performing the project, and shall, as indicated in this paragraph, have a substantial role in project decision making.

(C) No Government Obligation to Third Parties

In connection with the performance of the Project, the Government shall have no obligation or responsibility to any contractor, subcontractor or other person who is not a party to this Cooperative Agreement. The foregoing limitation shall apply notwithstanding the Contracting Officer's prior approval or consent of any contract awarded by the Recipient.

ARTICLE IV. DESIGNATION OF THE DOE CONTRACTING OFFICER'S REPRESENTATIVE (COR)

COR: (See Block 11 of the Notice of Financial Assistance Award, DOE F 4600.1.)

Contract Specialist: (See Block 12 of the Notice of Financial Assistance Award, DOE F 4600.1.)

Patent Counsel: U. S. Department of Energy
Office of Intellectual Property Law
Chicago Operations Office
9800 South Cass Avenue
Argonne, IL 60439
ATTN: Mark Dvorczak (708) 252-2178

The DOE Contracting Officer is the only Government representative authorized to accept the reports and other deliverables that the Recipient is required to provide under this Cooperative Agreement. The review and approval of such reports and other deliverables may be delegated to the Contracting Officer's authorized representatives.

The DOE Contracting Officer shall designate a COR who shall have the authority to issue written Technical Advice which suggests redirecting the project work (e.g., by changing the emphasis among different tasks), or pursuing specific lines of inquiry likely to assist in accomplishing the SOW. The COR shall have the authority to approve or disapprove those technical reports, plans, and other technical information that the Recipient is required to submit to DOE for approval. The COR is not authorized to issue and the Recipient is not required to follow any Technical Advice that constitutes work that is not within the scope of the SOW; that in any manner causes an increase or decrease in the total estimated cost or in the time required for performance of the project; that has the effect of changing any of the terms or conditions of the Cooperative Agreement; or that interferes with the Recipient's right to perform the project in accordance with the terms and conditions of this Cooperative Agreement.

ARTICLE V. KEY PERSONNEL

The personnel specified in this clause are considered to be essential to the project. Before diverting any key person to other work, the Recipient shall notify the Contracting Officer reasonably in advance and shall submit justification (including proposed substitutions) in sufficient detail to permit evaluation of the impact on the project. No key person may be substituted without the Contracting Officer's approval. Such approval shall be obtained in advance of the substitution, except that the Contracting Officer may ratify a substitution which, because of exigent circumstances, was made before the Recipient could request and/or obtain the Contracting Officer's approval.

NameTitle

TBD

ARTICLE VI. PROJECT SITE AND ACCESS

The project shall be performed principally at the following site(s): [Identify location/address of project site]. At the request of the DOE Contracting Officer or the COR, the Recipient shall provide Government officials and interested members of the public as determined by DOE with access to the project site(s) to observe project operations at reasonable times and with reasonable limitations on the numbers of people during each visit.

ARTICLE VII. BUDGET/PROJECT PERIOD AND ESTIMATED PROJECT COSTS

(A) Project/Budget Periods

The budget/project period of this Cooperative Agreement is expected to be not longer than eighteen (18) months. The expected duration of the project/budget period will be established during negotiations.

(B) Total Estimated Project Costs

DOE and the Recipient shall share in allowable direct and indirect project costs in the percentages up to the amounts shown below:

TOTAL ESTIMATED PROJECT COSTS _____

DOE share	\$ _____	%
Recipient share	\$ _____	%

In accordance with 10 CFR 600.123 (j), the Recipient's cost share identified in Block No. 16 (a)(5) of the DOE F 4600.1 represents its percentage of total costs as outlined above.

ARTICLE VIII. PROJECT DECISION MAKING

A) Project Evaluation

Within sixty (60) days of the beginning of the project, the Recipient shall submit a Project Management Plan (Plan) for DOE review and approval. Among other things, the Plan must identify and describe the criteria by which the technical and economic feasibility of the project are to be evaluated.

ARTICLE IX. DOE FINANCIAL SUPPORT AND LIMITATIONS ON DOE FUNDING

(A) DOE Obligation

The maximum DOE obligation is the amount identified in Block 16.b(4) of the Notice of Financial Assistance Award (DOE F 4600.1). DOE shall not be obligated to make any additional, supplemental, continuation, renewal, or other award for the same or any other purpose.

(B) PROJECT COSTS

Allowable and allocable direct and indirect project costs shall be determined by the Federal Cost Principles (FAR 31.2) applicable to the award. In addition to these cost principles, the guidelines contained in this Article shall be utilized by the DOE to determine allowable and allocable project costs, as well as to determine that portion of allowable and allocable project costs considered appropriate for cost sharing purposes.

C)

Unallowable Project Costs For Cost Sharing

1. EXISTING FACILITY

Neither the cost nor value of an existing facility is eligible for cost sharing under this program.

2. DIRECT COSTS OF NEGOTIATIONS

Costs incurred in negotiating a Cooperative Agreement with DOE are not allowable as direct charges to the project.

3. BASIS FOR DEPRECIATION

DOE shall not accept valuation for property sold, transferred, exchanged, or manipulated in any way to acquire a new basis for depreciation purposes or to establish a fair use value in circumstances that would amount to a transaction for the purpose of the Cooperative Agreement.

4. DIRECT COST VS. DEPRECIATION

DOE will not share in both the direct cost and depreciation on the same item. Depreciation is not allowable for cost sharing on any item previously charged to the project as a direct cost. For example, DOE will cost share the direct cost on equipment or facilities purchased or constructed for the project but will not also cost share the depreciation.

5. INTEREST AND FINANCING COSTS

Interest on borrowings (however represented) and other financial costs such as bond discounts, cost of financing and refinancing capital (net worth plus long-term liabilities), are unallowable project costs and will not be cost shared. This includes interest on funds borrowed for construction.

6. FACILITIES CAPITAL COST OF MONEY

Facilities capital cost of money shall be an unallowable cost on all real property or equipment acquired by or on behalf of the Recipient in connection with the performance of the project.

7. RESEARCH, DEVELOPMENT OR DEMONSTRATION COSTS

Previously expended and/or concurrent research, development, or demonstration costs are not cost sharing.

8. FORGONE FEE, PROFIT OR REVENUE

Forgone fees, forgone profits, or forgone revenues are not allowable costs. Such costs shall not, therefore, qualify as cost sharing, nor will DOE pay any portion of such costs.

9. FEE OR PROFIT

Fee or profit will not be paid to any member of the proposing team (including subcontractor members) having a substantial and direct interest in the project. Competitive subcontracts placed with the prior written consent of the Contracting Officer and subcontracts for routine supplies and services are not covered by this prohibition.

10. VALUATION OF PATENTS AND PROPRIETARY DATA

Patents and proprietary data will not be valued in determining the Recipient's cost share in the project.

11. PAST, PRESENT OR FUTURE FEDERAL GOVERNMENT CONTRACTS

Allowable costs under past, present or future Federal Government contracts, cooperative agreements or grants may not be charged against this Cooperative Agreement. Likewise, the Recipient may not charge costs allowable under this project, including any portion of its cost share to the Federal Government under any other contracts, cooperative agreements, or grants.

12. BUSINESS LOSSES

Business losses are not an allowable project cost.

(D) Program Income

The use of program income shall be in accordance with the principles set forth in 10 CFR 600.124(b)(3).

ARTICLE X. RESERVED

ARTICLE XI. BUDGET ADJUSTMENTS

(A) Budget Revisions

The Recipient may rebudget funds within the total approved budget, subject to the prior approval requirements of 10 CFR § 600.125(b) and (e). The Recipient shall obtain prior written approval of the DOE Contracting Officer for any budget revision which would result in the need for additional DOE funding.

(B) Additional Funds

The Recipient shall immediately notify the DOE Contracting Officer in writing whenever it becomes apparent that the cost of completing the project exceeds the total approved budget. Such written notice shall, at a minimum, set forth a detailed explanation of the magnitude and factors causing the cost overrun.

(C) DOE/Recipient Share of Additional Funds

(1) If additional DOE funds are awarded, DOE's percentage share of the allowable cost will not exceed the DOE percentage share of the Total Estimated Project Cost as shown in Article VII(B) as of the date of award.

(2) In the event DOE elects to share in a project cost overrun and makes DOE funds available for such cost sharing, the Recipient agrees that it will continue performance of the project and provide the Recipient's respective share of the cost overrun funding.

ARTICLE XII. PAYMENT

Payment under this Cooperative Agreement shall be made by Reimbursement by Treasury Check. All requests for reimbursement shall be made using the Standard Form SF 270, "Request for Advance or Reimbursement" and shall complete Blocks 1-11 and 13. Such requests for reimbursement shall be prepared using the Standard Form SF 270. The original shall be submitted to the following address:

U.S. Department of Energy
Oak Ridge Financial Service Center
P.O. Box 4967
Oak Ridge, TN 37831

Phone: 423/576-1651 or 1-888/251-3557

Two copies are to be submitted to:

Commercial Payments Center
U. S. Department of Energy
Federal Energy Technology Center
P.O. Box 10940, MS 921-143
Pittsburgh, PA 15236-0940

ARTICLE XIII. RIGHTS IN INTELLECTUAL PROPERTY

The rights and obligations of the parties with respect to intellectual property are set forth in Attachment B to this Cooperative Agreement.

ARTICLE XIV. REPORTING REQUIREMENTS

Reports shall be submitted in accordance with the requirements of the Federal Assistance Reporting Checklist as set forth in Attachment C to this Cooperative Agreement.

ARTICLE XV. PROCUREMENT

In selecting, awarding, and administering contracts under this Cooperative Agreement, the Recipient shall abide by the requirements and goals set forth in this Agreement. Subcontracts are covered under Article XXVIII.

(A) Responsible Contractors

The Recipient shall not award or approve or consent to the award of a contract to any party that is debarred or suspended or is excluded from or ineligible for participation in Federal assistance programs under the Government-wide Debarment and Suspension (Nonprocurement) rules at 10 CFR Part 1036. Copies of these rules and the General Services Administration's (GSA) List of Parties Excluded from Federal Procurement or Nonprocurement Programs (Nonprocurement List) may be obtained from the DOE Contracting Officer.

(B) Procurement Goals

The Recipient's subcontracting plans are not required; however, the Recipient will take all reasonable affirmative steps to assure that small businesses, small disadvantaged businesses, women-owned small business, and labor surplus area concerns are used when possible.

(C) Agreement Clauses

The Recipient shall use the clauses in Attachment D.

ARTICLE XVI. INSURANCE AND INDEMNITY

In addition to any insurance that is required under paragraph (A) and that may be required under paragraph (B) of this Article, the Recipient shall acquire and thereafter maintain workmen's compensation, employer's liability, comprehensive general liability (bodily injury), and comprehensive automobile liability (bodily injury and property damage) insurance, and such other insurance coverage as the Recipient normally carries for similar projects. With the approval of the DOE Contracting Officer, the Recipient may maintain a self-insurance program for any of the coverages specified in this Article; provided that, with respect to workmen's compensation, the Recipient is qualified under applicable statutory and regulatory authority. All insurance required pursuant to the provisions of this Article shall be in such form, in such amounts, for such periods of time, and provided by such insurance carriers as the DOE Contracting Officer may approve.

(A) Hazards (Property Damage)

The Recipient will provide hazard insurance (theft, fire, windstorm, water damage, etc.) covering the materials, equipment, and structures acquired or constructed under this Cooperative Agreement. Proceeds from such insurance may be used to replace the damaged or destroyed property. If the Recipient decides not to replace or repair the property, the insurance proceeds will be paid to DOE in the same ratio as the cost share formula applicable to the budget period of the Cooperative Agreement when the equipment or property was purchased.

(B) Flood Insurance

If funds under this Cooperative Agreement are used to acquire or construct property or equipment for use in an identified flood plain area in the United States having special flood, special flood-related erosion, or special mudslide (i.e., mud-flow) hazards, the Recipient shall obtain flood insurance as required by the Flood Disaster Protection Act of 1973 (42 U.S.C. 4002, 4012a, 4105), as amended. Proceeds from such insurance may be used to replace the damaged or destroyed property. If the Recipient decides not to replace or repair the property, the insurance proceeds will be paid to DOE in the same ratio as the cost share formula applicable to the budget period of the Cooperative Agreement when the equipment or property was purchased.

(C) Indemnity

The Recipient shall indemnify the Government and its officers, agents, and employees for any and all liability, including litigation expenses and attorneys' fees, arising from suits, actions, or claims of any character for death, bodily injury, or loss of or damage to property or to the environment, resulting from the fault or negligence of the Recipient in performing the project under this Cooperative Agreement.

ARTICLE XVII. BONDING FOR CONSTRUCTION

The Recipient shall require any construction contractor or subcontractor to obtain performance and payment bonds for any construction project in accordance with practices approved by the Contracting Officer.

ARTICLE XVIII. PROPERTY MANAGEMENT AND DISPOSITION

10 CFR 600.130-137 sets forth uniform standards governing management and disposition of property furnished by the Federal Government or whose cost was charged to a project supported by a Federal award.

ARTICLE XIX. TERMINATION

(A) Termination by Mutual Agreement

This Cooperative Agreement may be terminated, in whole or in part, by mutual agreement at any time. The initiation and negotiation of such a termination shall be conducted in accordance with the procedures set forth in 10 CFR § 600.25.

(B) Termination for Cause

DOE may terminate the Cooperative Agreement, in whole or in part, for cause (i.e., on the basis of a noncompliance determination). DOE shall provide advance written notice, as required by 10 CFR § 600.29, of any noncompliance determination (with a minimum 30-day opportunity to cure the non-compliance) except as provided in 10 CFR 600.22 and of any subsequent decision to terminate for cause. The Cooperative Agreement may not be terminated for delays in performance caused by fires, floods, strikes, acts or omissions of the Government, acts of God, or similar causes that are beyond the control of the Recipient.

(C) Effect of Termination

DOE shall have no liability for paying the costs of any new obligations incurred by the Recipient after the effective date of the termination of this Cooperative Agreement (or portion thereof). DOE shall pay its share of all noncancellable obligations properly incurred by the Recipient before the effective date of the termination.

ARTICLE XX. RECORDS RETENTION, ACCESS, AND DISCLOSURE

(A) Period of Retention

The Recipient shall retain all financial and performance records, supporting documents, statistical records, and other records of the Recipient that are required to be retained by the terms of this Cooperative Agreement, and any other records the Recipient reasonably considers to be pertinent to this Cooperative Agreement. The period of required retention shall be from the date each such record is created or received by the Recipient until three years after one of the following dates, whichever is latest: the expiration date of this Cooperative Agreement; the date the Recipient's final expenditure report is submitted to DOE; or if this Cooperative Agreement is terminated in its entirety, the effective date of the termination. If any claim, litigation, negotiation, investigation, audit, or other action involving the records starts before the expiration of the three-year retention period, the Recipient shall retain the records until such action is completed and all related issues are resolved, or until the end of the three-year retention period, whichever is later.

(B) Authorized Copies

Copies made by microfilm, photocopying, or similar methods may be substituted for original records. Records originally created by computer may be retained on an electronic medium, provided such medium is "read only" or is protected in such a manner that the electronic record can be authenticated as an original record.

(C) Access to Records

Subject to any legitimate claims of Attorney/Client Privilege as determined by a court of competent jurisdiction, DOE and the Comptroller General of the United States, or any of their authorized representatives, shall have the right of access to any books, documents, papers, or other records (including those on electronic media) that are pertinent to this Cooperative Agreement. The purpose of such access is limited to the making of audits, examinations, excerpts, and transcripts. The right of access described in this paragraph shall last as long as the Recipient retains records that are pertinent to this Cooperative Agreement.

ARTICLE XXI. PUBLIC INFORMATION RELEASE

The Recipient shall coordinate in advance with the DOE Contracting Officer on all information to be issued by the Recipient to the public concerning work performed under this Cooperative Agreement. Information shall not be released to the public without first obtaining the approval of the DOE Contracting Officer.

ARTICLE XXII. LEGAL NOTICE/DISCLAIMER

The following notice shall be contained in all reports intended to be released to the public:

This report was prepared by _____ pursuant to a Cooperative Agreement partially funded by the U.S. Department of Energy, and neither _____ nor any of its subcontractors nor the U.S. Department of Energy, nor any person acting on behalf of either:

(A) Makes any warranty or representation, express or implied, with respect to the accuracy, completeness, or usefulness of the information contained in this report, or that the use of any information, apparatus, method, or process disclosed in this report may not infringe privately-owned rights; or

(B) Assumes any liabilities with respect to the use of, or for damages resulting from the use of, any information, apparatus, method or process disclosed in this report. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the U.S. Department of Energy. The views and opinions of authors expressed herein do not necessarily state or reflect those of the U.S. Department of Energy.

ARTICLE XXIII. INTEREST

(A) Notwithstanding any other term or condition of this Agreement, all amounts that become payable by the Recipient to the Government under this Agreement shall bear simple interest from the date due until paid, unless paid within 30 days of becoming due. The interest rate shall be the interest rate established by the Secretary of the Treasury (Secretary) as provided in Section II of the Debt Collection Act of 1982 (31 U.S.C. 3717), which is applicable to the period in which the amount becomes due, as provided in Paragraph B of this provision, and then at the rate applicable for each 3-month period as fixed by the Secretary until the amount is paid.

(B) Amounts shall be due at the earliest of the following dates:

- 1) The date fixed under this Agreement.
- 2) The date of the first written demand for payment consistent with this Agreement, including any demand resulting from a termination.
- 3) The date the Government transmits to the Recipient a proposed agreement to confirm completed negotiation establishing the amount of debt.

(C) The interest charge made under this provision may be reduced in accordance with the procedures prescribed in 4 CFR Paragraph 102.13 or in accordance with agency regulations in effect on the date of original award of this Agreement.

ARTICLE XXIV. SEVERABILITY

If a court of competent jurisdiction or the DOE Financial Assistance Appeals Board determines that any part of this Cooperative Agreement is invalid, void, unenforceable, or inconsistent with any applicable Federal statute or regulation, such part shall be deemed to have been amended or deleted to conform to such determination.

ARTICLE XXV. NOTIFICATION OF ENVIRONMENT, SAFETY AND HEALTH VIOLATIONS

Any written Notice of Violation of any Federal Environment, Safety, and Health Statute including those listed below (or any state, county or municipal law deriving from such federal statute) arising from the performance of this Cooperative Agreement, that is received by the Recipient from any federal, state, county or municipal authority shall be immediately communicated to the Government COR. Such communication shall be by telephone and shall occur not later than twenty-four (24) hours following the **receipt** of written Notice of Violation.

The telephone communication shall be followed by a written report to be delivered to the COR in an original and two (2) copies not later than ten (10) calendar days following the date of written Notice of Violation. Such written report shall include a conformed copy of the Notice of Violation, an analysis of the pertinent facts giving rise to the violation, and a schedule of the remedial events and time periods necessary to bring the Recipient into compliance with the violated statute and/or regulation.

Environment, Safety and Health Statutes

The Clean Air Act
The Clean Water Act
The Resource Conservation and Recovery Act
The Comprehensive Environmental Response, Compensation, and Liability Act
The Toxic Substance Control Act
The Safe Drinking Water Act

ARTICLE XXVI. NOTIFICATION OF SPILL OR UNREGULATED RELEASE

Any spill or unregulated release that is in violation of any Federal Environment, Safety, and Health Statute including those listed below (or any state, county or municipal law deriving from such federal statute) arising from the performance of this Cooperative Agreement shall upon its being reported to the proper federal, state, county or municipal authority also be immediately communicated to the Government COR. Such communication shall be by telephone and shall occur not later than twenty-four (24) hours following the date of the incident being reported.

The telephone communication shall be followed by a written report to be delivered in an original and two (2) copies to the COR, with an additional copy to the Contracting Officer not later than ten (10) calendar days following the date of the incident being reported. Such written report shall include an analysis of the pertinent facts giving rise to the violation, and a schedule of the remedial events and the time periods necessary to bring the Recipient into compliance with the violated statute and/or regulation.

Environment, Safety and Health Statutes

The Clean Air Act
The Clean Water Act
The Resource Conservation and Recovery Act
The Comprehensive Environmental Response, Compensation, and Liability Act
The Toxic Substance Control Act
The Safe Drinking Water Act

ARTICLE XXVII. SUBCONTRACTS

All procurements, including subcontracts, will follow the prescription of 10 CFR 600.140-149. Consent is hereby provided to [Identify subcontractor names to be established at negotiations].

ARTICLE XXVIII. NOTICE OF INVOICE PROCESSING BY SUPPORT CONTRACTOR

A Small Business Administration, 8(a) support services contractor performs the function of processing of all invoices submitted to the Federal Energy Technology Center against its awards. Therefore, this contractor has access to your business confidential cost/rate information. A special provision in this contractor's award requires the confidential treatment by all contractor employees of any and all business confidential information of other contractors and financial assistance recipients to which they have access. The contractor employees sign non-disclosure agreements, and the contractor is legally responsible for any actions arising as a result of disclosure of confidential information by its employees.

ARTICLE XXIX. ORDER OF PRECEDENCE

In the event of any inconsistency among the provisions of this Agreement, the inconsistency shall be resolved by giving precedence as follows: (a) applicable Public Laws; (b) 10 CFR 600; (c) the schedule of Articles; and (d) other documents, exhibits and attachments.

ATTACHMENT A

STATEMENT OF WORK

To be provided by the offeror

ATTACHMENT B

INTELLECTUAL PROPERTY PROVISIONS
FOR
COST-SHARING COOPERATIVE AGREEMENT

**INTELLECTUAL PROPERTY PROVISIONS - ASSISTANCE
(GRANTS AND COOPERATIVE AGREEMENTS)**

CHECK ALL
APPLICABLE
CLAUSES

CLAUSE TITLE

PATENT CLAUSES

- ☐ 1. **Patent Rights-Retention by the Contractor (Short Form)**
[MAR 95], 48 CFR 952.227-11 (10 CFR 600.27(b)(1)(i). *For awards to a domestic small business firm or nonprofit organization*

- ☐ 1. **Patent Rights-Acquisition by the Government**
[MAR 95], 48 CFR 952.227-13 (10 CFR 600.27(b)(1)(ii). *For awards to a large business firm or other organization, other than a domestic small business firm or nonprofit organization*

- ☐ 2. **Right to Request Patent Waiver [APR 84], 48 CFR 952.227-84 (10 CFR 600.27(b)(1)(iii)).** *To be included for all non-competitive (DNCFA) financial assistance actions*

- ☐ 3. **Advance Waiver of Patent Rights.** *To be included only for For-Profit, Large Business and Foreign Organizations, as appropriate*

- ☐ 4. **Patent Indemnity [APR 1984], FAR 52.227-3 (10 CFR 600.27(b)(4))**
NOTE: Do not use this clause if the award contains clause 52.227-1, Authorization and Consent-Alternate I and substantial standard supplies/services are not anticipated; or when both performance and delivery are to be outside of the United States

ALTERNATES (CHECK ALL THAT APPLY)

- ☐ Patent Indemnity, Alternate I [APR 1984]
- ☐ Patent Indemnity, Alternate II [APR 1984]
- ☐ Patent Indemnity, Alternate III [JUL 1995]

DATA CLAUSES

- ☐ 5. **Rights in Data-General [JUN 87] (with revised paragraph (c)), 48 CFR 52-227.14 (10 CFR 600.27(b)(2) A and B) For grants or cooperative agreements with institutions of higher education, hospitals and other non-profit organizations. (Use with Alternates I and V)**
- ☐ 5. **Rights in Data-General [JUN 87] (with added paragraph (d)(3)), 48 CFR 52-227.14 (10 CFR 600.27(b)(2) A and C) For grants or cooperative agreements with commercial organizations, foreign governments, organizations under the jurisdiction of foreign governments and international organizations**

ADDITION/ALTERNATES (CHECK ALL THAT APPLY)

- ☐ Paragraph (k) - Contractor Licensing - To be inserted only in awards to “For-Profit Large Businesses and Foreign Organizations; not required for Small Business or Non-Profit Entities
 - ☐ Rights in Data-General, Alternate I [JUN 87]
 - ☐ Rights in Data-General, Alternate II [JUN 87]
 - ☐ Rights in Data-General, Alternate III [JUN 87]
 - ☐ Rights in Data-General, Alternate IV [JUN 87]
 - ☐ Rights in Data-General, Alternate V [JUN 87]
-
- ☐ 6. **Authorization and Consent [JUL 95], 48 CFR 927.201-1 and 48 CFR 27.201 (10 CFR 600.27(b)(3)). For use with all supplies and services actions unless both completely performed AND delivered outside the United States.**

ALTERNATES (CHECK ALL THAT APPLY)

- ☐ Authorization and Consent [JUL 95], Alternate I [JUL 95].
For use with all R&D awards
- ☐ Authorization and Consent [JUL 95], Alternate II [JUL 95].
For use with all Communications Services actions

☐ 7. **Notice and Assistance Regarding Patent and Copyright Infringement [APR 84], 48 CFR 52.227-2, (10 CFR 600.27(b)(6))** *For awards in excess of \$100,000 for construction, research & development/demonstration performed in the United States, its possessions or Puerto Rico*

☐ 8. **Royalty Information [APR 84], 48 CFR 52.227-6, (10 CFR 600.27(b)(7)).** *For use in solicitations only*

ALTERNATES (CHECK ALL THAT APPLY)

☐ **Royalty Information [APR 84, Alternate I [APR 84]**

☐ 9. **Refund of Royalties [APR 84], 48 CFR 52.227-9, (10 CFR 600.27(b)(6))**

☐ 10. **Rights to Proposal Data (Technical) [JUN 87], 48 CFR 952.227-23 (10 CFR 600.27(b)(2)(D)(iii))**

☐ 11. **Additional Data Requirements [JUN 1987], 48 CFR 52.227-16, (10 CFR 600.27(b)(2)(D)(iv)).** *For use in all awards other than basic or applied research for Colleges and Universities of actions for \$500K or less*

INTELLECTUAL PROPERTY PROVISIONS - ASSISTANCE
(GRANTS AND COOPERATIVE AGREEMENTS)

CHECK ALL
APPLICABLE
CLAUSES

CLAUSE TITLE

1. **952.227-11 Patent Rights - Retention by the Contractor (Short Form). (MAR 1995)**

As prescribed in 927.303(a) insert the following clause:

PATENT RIGHTS - RETENTION BY THE CONTRACTOR (SHORT FORM) (MAR 1995)

(a) *Definitions.*

(1) "Invention" means any invention or discovery which is or may be patentable or otherwise protectable under title 35 of the United States Code, or any novel variety of plant which is or may be protected under the Plant Variety Protection Act (7 U.S.C. 2321, et seq.)

(2) "Made when used in relation to any invention" means the conception of first actual reduction to practice of such invention.

(3) "Nonprofit organization" means a university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c) and exempt from taxation under section 501(a) of the Internal Revenue Code (26 U.S.C. 501(a)) or any nonprofit scientific or educational organization qualified under a state nonprofit organization statute.

(4) "Practical application" means to manufacture, in the case of composition or product; to practice, in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.

(5) "Small business firms" means a small business concern defined at section 2 of Public Law 85-536 (15 U.S.C. 632) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this clause, the size standards for small business

concerns involved in Government procurement and subcontracting at 13 CFR 121.3-8 and 13 CFR 121.3-12, respectively, will be used.

(6) "Subject invention" means any invention of the contractor conceived or first actually reduced to practice in the performance of work under this contract, provided that in the case of variety of plant, the date of determination (as defined in section 41(d) of the Plant Variety Protection Act, 7 U.S.C. 2401(d)) must also occur during the period of contract performance.

(7) "Agency licensing regulations" and "Agency regulations concerning the licensing of Government-owned inventions" means the Department of Energy patent licensing regulations at 10 CFR part 781.

(b) *Allocation of principal rights.* The Contractor may retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this clause and 35 U.S.C. 203. With respect to any subject invention in which the Contractor retains title, the Federal Government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.

(c) *Invention disclosure, election of title, and filing of patent application by Contractor.*

(1) The Contractor will disclose each subject invention to the Department of Energy (DOE) within 2 months after the inventor discloses it in writing to Contractor personnel responsible for the patent matters. The disclosure of DOE shall be in the form of a written report and shall identify the contract under which the invention was made and the inventor(s). It shall be sufficient complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical, chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale or public use of the invention and whether a manuscript describing the invention has been submitted for publication at the time of disclosure. In addition, after disclosure to the DOE, the Contractor will promptly notify that agency of the acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the Contractor.

(2) The Contractor will elect in writing whether or not to retain title to any such invention by notifying DOE within 2 years of disclosure to

DOE. However, in any case where publication, on sale or public use has initiated the 1 year statutory period wherein valid patent protection can be obtained in the United States, the period for election of title may be shortened by DOE to a date that is no more than 60 days prior to the end of the statutory period.

(3) The Contractor will file its initial patent application on a subject invention to which it elects to retain title within 1 year after election of title or, if earlier, prior to the end of any statutory period wherein valid patent protection can be obtained in the United States after a publication, on sale, or public use. The Contractor will file patent applications in additional countries or international patent offices within either 10 months of the corresponding initial patent application or 6 months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where such filing has been prohibited by a Secretary of Order.

(4) Requests for extension of the time for disclosure, election, and filing under subparagraphs (c)(1), (2) and (3) of this clause may, at the discretion of the agency, be granted.

(d) *Conditions when the Government may obtain title.* The Contractor will convey to the Federal agency, upon written request, title to any subject invention.

(1) If the Contractor fails to disclose or elect title to the subject invention within the times specified in paragraph (c) of this clause, or elects not to retain title; provided, that DOE may only request title within 60 days after learning of the failure of the Contractor to disclose or elect within the specified times.

(2) In those countries in which the Contractor fails to file patent applications within the times specified in paragraph (c) of this clause; provided, however, that if the Contractor has filed a patent application in a country after the times specified in paragraph (c) of this clause, but prior to its receipt of the written request of the Federal agency, the Contractor shall continue to retain title in that country.

(3) In any country in which the Contractor decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in reexamination or opposition proceeding on, a patent on a subject invention.

(e) *Minimum rights to Contractor and protection of the Contractor right to file.*

(1) The Contractor will retain a nonexclusive royalty-free license throughout the world in each subject invention to which the Government obtains title, except if the Contractor fails to disclose the invention within the times specified in paragraph (c) of this clause. The Contractor's license extends to its domestic subsidiary and affiliates, if any, within the corporate structure of which the Contractor is a party and includes the right to grant sublicenses of the same scope to the extent the Contractor was legally obligated to do so at the time the contract was awarded. The license is transferable only with the approval of the Federal agency, except when transferred to successor of the part of the Contractor's business to which the invention pertains.

(2) The Contractor's domestic license may be revoked or modified by DOE to the extent necessary to achieve expeditious practical application of subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions at 37 CFR part 404 and agency licensing regulations. This license will not be revoked in that a field of use or the geographical areas in which the Contractor has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of DOE to the extent the Contractor, its licensees, or the domestic subsidiaries or affiliates have failed to practical application in the foreign country.

(3) Before revocation or modification of the license, DOE will furnish the Contractor a written notice of its intention to revoke or modify the license, and the Contractor will be allowed 30 days (or such other time as may be authorized by DOE for good cause shown by the Contractor) after the notice to show cause why the license should not be revoked or modified. The Contractor has the right to appeal, in accordance with applicable regulations in 37 CFR part 404 and agency regulations concerning the licensing of Government inventions, any decision concerning the revocation or modification of the license.

(f) *Contractor action to protect the Government's interest.*

(1) The Contractor agrees to execute or to have executed and promptly deliver to DOE all instruments necessary to:

(i) establish or confirm the rights the Government has throughout the world in those subject inventions to which the Contractor elects to retain title, and

(ii) convey title to DOE when requested under paragraph (d) of this clause and to enable the government to obtain patent protection throughout the world in that subject invention.

(2) The Contractor agrees to require, by written agreement, its employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the Contractor each subjected invention made under contract in order that the Contractor can comply with the disclosure provisions of paragraph (c) of this clause, and to execute all papers necessary to file patent applications on subject inventions and to establish the Government's rights in the subject inventions. This disclosure format should require, as a minimum, the information required by subparagraph (c)(1) of this clause. The Contractor shall instruct such employees, through employee agreements or other suitable educational programs, on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.

(3) The Contractor will notify DOE of any decision not to continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than 30 days before the expiration of the response period required by the relevant patent office.

(4) The Contractor agrees to include, within the specification of any United States patent application and any patent issuing thereon covering a subject invention, the following statement, "This invention was made with Government support under (identify the contract) awarded by the United States Department of Energy. The Government has certain rights in the invention."

(g) *Subcontracts.*

(1) The Contractor will include this clause, suitably modified to identify the parties, in all subcontracts, regardless of tier, for experimental, developmental, or research work to be performed by a small business firm or domestic nonprofit organization. The subcontractor will retain all rights provided for the Contractor in this clause, and the Contractor

will not, as part of the consideration for awarding the subcontract, obtain rights in the subcontractor's subject inventions.

(2) The contractor shall include in all other subcontracts, regardless of tier, for experimental, developmental, demonstration, or research work the patent rights clause at 952.227-13.

(3) In the case of subcontracts, at any tier, DOE, subcontractor, and the Contractor agree that the mutual obligations of the parties created by this clause constitute a contract between the subcontractor and DOE with respect to the matters covered by the clause; provided, however, that nothing in this paragraph is intended to confer any jurisdiction under the Contract Disputes Act in connection with proceedings under paragraph (j) of this clause.

(h) *Reporting on utilization of subject inventions.* The Contractor agrees to submit, on request, periodic reports no more frequently than annually on the utilization of a subject invention or on effort at obtaining such utilization that are being made by the Contractor or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received, by the Contractor, and such other data and information as DOE may reasonably specify. The Contractor also agrees to provide additional reports as may be requested by DOE in connection with any march-in proceeding undertaken by that agency in accordance with paragraph (j) of this clause. As required by 35 U.S.C. 202(c)(5), DOE agrees it will not disclose such information to persons outside the Government without permission of the Contractor.

(i) *Preference for United States industry.* Notwithstanding any other provision of this clause, the Contractor agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject invention in the United States unless such person agrees that any product embodying the subject invention will be manufactured substantially in the United States. However, in the individual cases, the requirement for such an agreement may be waived by DOE upon a showing by the Contractor or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.

(j) *March-in rights.* The Contractor agrees that, with respect to any subject invention in which it has acquired title, DOE has the right in accordance with the procedures in 37 CFR 401.6 and any supplemental regulations of the agency

to require the Contractor, an assignee or exclusive licensee of a subject invention to grant a nonexclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and, if the Contractor, assignee, or exclusive licensee refuses such a request, DOE has the right to grant such a license itself if DOE determines that

(1) Such action is necessary because the Contractor or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use;

(2) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Contractor, assignee, or their licensees;

(3) Such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are reasonably satisfied by the Contractor, assignee, or licensees; or

(4) Such action is necessary because the agreement required by paragraph (i) of this clause has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of such agreement.

(k) *Special provisions for contracts with nonprofit organizations.* If the Contractor is a nonprofit organization, it agrees that:

(1) Rights to a subject invention in the United States may not be assigned without the approval of the Federal agency, except where such assignment is made to an organization which has as one of its primary functions the management of inventions; provided, that such assignee will be subject to the same provisions as the Contractor;

(2) The Contractor will share royalties collected on a subject inventions with the inventor, including Federal employee coinventors (when DOE deems it appropriate) when the subject invention is assigned in accordance with 35 U.S.C. 202(e) and 37 CFR 401.10;

(3) The balance of any royalties or income earned by the Contractor with respect to subject inventions, after payment of expenses (including payments to inventors) incidental to the administration of subject inventions will be utilized for the support of scientific research or education; and

(4) It will make efforts that are reasonable under the circumstances to attract licensees of subject inventions that are small business firms, and that it will give a preference to a small business firm when licensing a subject invention if the Contractor determines that the small business firm has a plan or proposal for marketing the invention which, if executed, is equally as likely to bring the invention to practical application as any plans or proposals from applicants that are not small business firms; provided, that the Contractor is also satisfied that the small business firm has the capability and resources to carry out its plan or proposal. The decision whether to give a preference in any specific case will be at the discretion of the contractor. However, the Contractor agrees that the Secretary of Commerce may review the Contractor's licensing program and decisions regarding small business applicants, and the Contractor will negotiate changes to its licensing policies, procedures, or practices with the Secretary of Commerce when the Secretary's review discloses that the Contractor could take reasonable steps to more effectively implement the requirements of this subparagraph (k)(4).

(l) *Communications.*

(1) The contractor shall direct any notification, disclosure, or request to DOE provided for in this clause to the DOE patent counsel assisting the DOE contracting activity, with a copy of the communication to the Contracting Officer.

(2) Each exercise of discretion or decision provided for in this clause, except subparagraph (k)(4), is reserved for the DOE Patent Counsel and is not a claim or dispute and is not subject to the Contract Dispute Act of 1978.

(3) Upon request of the DOE Patent Counsel or contracting officer, the contractor shall provide any or all of the following:

(i) A copy of the patent application, filing date, serial number and title, patent number, and issue date for any subject invention in any country in which the contractor has applied for a patent;

(ii) A report, not more often than annually, summarizing all subject inventions which were disclosed to DOE individually during the reporting period specified; or

(iii) A report, prior to closeout of the contract, listing all subject inventions or stating that there were none.

1. 952.227-13 Patent Rights - Acquisition by the Government. (MAR 1995)

As prescribed at 927.303(c), insert the following clause:

PATENT RIGHTS - ACQUISITION BY THE GOVERNMENT (MAR 1995)

(a) Definitions.

"Invention," as used in this clause, means any invention or discovery which is or may be patentable or otherwise protectable under title 35 of the United States Code or any novel variety of plant that is or may be protectable under the Plant Variety Protection Act (7 U.S.C. 2321, *et seq.*)

"Practical applicataion," as used in this clause, means to manufacture, in the case of a composition or product; to practice, in the case of a process or method; or to operate, in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.

"Subject invention," as used in this clause, means any invention of the Contractor conceived or first actually reduced to practice in the course of or under this contract.

"Patent Counsel," as used in this clause, means the Department of Energy Patent Counsel assisting the procuring activity.

"DOE patent waiver regulations," as used in this clause, means the Department of Energy patent licensing regulations at 10 CFR part 781.

(b) Allocations of principal rights.

(1) *Assignment to the Government.* The Contractor agrees to assign to the Government the entire right, title, and interest throughout the world in and to each subject invention, except to the extent that rights are

retained by the Contractor under subparagraph (b)(2) and paragraph (d) of this clause.

(2) *Greater rights determinations.*

(i) The Contractor, or an employee-inventor after consultation with the Contractor, may request greater rights than the nonexclusive license and the foreign patent rights provided in paragraph (d) of this clause on identified inventions in accordance with the DOE patent waiver regulations. A request for a determination of whether the Contractor or the employee-inventor is entitled to acquire such greater rights must be submitted to the Patent Counsel with a copy to the Contracting Officer at the time of the first disclosure of the invention pursuant to subparagraph (e)(2) of this clause, or not later than 8 months thereafter, unless a longer period is authorized in writing by the Contracting Officer for good cause shown in writing by the Contractor. Each determination of greater rights under this contract shall be subject to paragraph (c) of this clause, unless otherwise provided in the greater rights determination, and to the reservations and conditions deemed to be appropriate by the Secretary of Energy or designee.

(ii) Within two (2) months after the filing of a patent application, the Contractor shall provide the filing date, serial number and title, a copy of the patent application (including an English-language version if filed in a language other than English), and, promptly upon issuance of a patent, provide the patent number and issue date for any subject invention in any country for which the Contractor has been granted title or the right to file and prosecute on behalf of the United States by the Department of Energy.

(iii) Not less than thirty (30) days before the expiration of the response period for any action required by the Patent and Trademark Office, notify the Patent Counsel of any decision not to continue prosecution of the application.

(iv) Upon request, the Contractor shall furnish the Government an irrevocable power to inspect and make copies of the patent application file.

(c) *Minimum rights acquired by the Government.*

(1) With respect to each subject invention to which the Department of Energy grants the Contractor principal or exclusive rights, the Contractor agrees as follows:

(i) The Contractor hereby grants to the Government a nonexclusive, transferable, irrevocable, paid-up license to practice or have practiced each subject invention throughout the world by or on behalf of the Government of the United States (including any Government agency).

(ii) The Contractor agrees that with respect to any subject invention in which DOE has granted it title, DOE has the right in accordance with the procedures in the DOE patent waiver regulations to require the Contractor, an assignee, or exclusive licensee of a subject invention to grant such a license itself if it determines that

(A) Such action is necessary because the Contractor or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use;

(B) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Contractor, assignee, or their licensees;

(C) Such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the Contractor assignee, or licensees; or

(D) Such action is necessary because the agreement required by paragraph (i) of this clause has neither been obtained nor waived or because a licensee of the exclusive right to use or sell any subject invention in their United States is in breach of such agreement.

(iii) The Contractor agrees to submit on request periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the Contractor or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties

received by the Contractor, and such other data and information as DOE may reasonably specify. The Contractor also agrees to provide additional reports as may be requested by DOE in connection with any march-in proceedings undertaken by that agency in accordance with subparagraph (c)(1)(ii) of this clause. To the extent data or information supplied under this section is considered by the Contractor, its licensee, or assignee to be privileged and confidential and is so marked, the Department of Energy agrees that, to the extent permitted by law, it will not disclose such information to persons outside the Government.

(iv) The Contractor agrees, when licensing a subject invention, to arrange to avoid royalty charges on acquisitions involving Government funds, including funds derived through a Military Assistance Program of the Government or otherwise derived through the Government, to refund any amounts received as royalty charges on a subject invention in acquisitions for, or on behalf of, refund in any instrument transferring rights in the invention to any party.

(v) The Contractor agrees to provide for the Government paid-up license pursuant to subparagraph (c)(1)(i) of this clause in any instrument transferring rights in a subject invention and to provide for the granting of licenses as required by subparagraph (c)(1)(iii) of this clause, whenever the instrument transfers principal or exclusive rights in a subject invention.

(2) Nothing contained in the paragraph (c) shall be deemed to grant to the Government any rights with respect to any invention other than a subject invention.

(d) *Minimum rights to the Contractor.*

(1) The Contractor is hereby granted a revocable nonexclusive, royalty-free license in each patent application filed in any country on a subject invention any resulting patent in which the Government obtains title, unless the Contractor fails to disclose the subject invention within the times specified in subparagraph (e)(2) of this clause. The Contractor's license extends to its domestic subsidiaries and affiliates, if any, within the corporate structure of which the Contractor is a part and includes the rights to grant sublicenses of the same scope to the extent the Contractor was legally obligated to do so at the time the contract was awarded. The

license is transferred to the successor of that part of the Contractor's business to which the invention pertains.

(2) The Contractor's domestic license may be revoked or modified by DOE to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions in 37 CFR part 404 and agency licensing regulations. This license will not be revoked in that field of use or the geographical areas in which the Contractor has achieved practical applications and continues to make the benefits to the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of DOE to the extent the Contractor, its licensees, or its domestic subsidiaries or affiliates have failed to achieve practical application in that foreign country.

(3) Before revocation or modification of the license, DOE will furnish the Contractor a written notice of its intention to revoke or modify license, and the Contractor will be allowed 30 days (or such other time as may be authorized by DOE for good cause shown by the Contractor) after the notice to show cause why the license should not be licensing should not be revoked or modified. The Contractor has the right appeal in accordance with applicable agency licensing regulations and 37 CFR part 404 concerning the licensing of Government-owned inventions, any decision concerning the revocation or modification of its license.

(4) The Contractor may request the right to acquire patent rights to a subject invention in any foreign country where the Government has elected not to secure such rights, subject to the conditions in subparagraphs (d)(4)(i) through (d)(4)(vii) of this clause. Such request must be made in writing to the Patent Counsel as part of the disclosure required by subparagraph (e)(2) of this clause, with a copy to the DOE Contracting Officer DOE approval, if given, will be based on a determination that this would best serve the national interest.

(i) The recipient of such rights, when specifically requested by DOE, and three years after issuance of a foreign patent disclosing the subject invention, shall furnish DOE a report stating:

(A) The Commercial use that is being made, or is intended to be made, of said invention, and

(B) The steps taken to bring the invention to the point of practical application or to make the invention available for licensing.

(ii) The Government shall retain at least an irrevocable, nonexclusive, paid-up license to make, use, and sell the invention throughout the world by or on behalf of the Government (including any Government agency) and States and domestic municipal governments, unless the Secretary of Energy or designee determines that it would not be in the public interest to acquire the license for the States and domestic municipal governments.

(iii) If noted elsewhere in this contract as a condition of the grant of an advance waiver of the Government's title to inventions under this contract, or, if no advance waiver was granted by a waiver of the Government's title to an identified invention is granted pursuant to subparagraph (b)(2) of this clause upon a determination by the Secretary of Energy that it is in the Government's best interest, this license shall include the right of the Government to sublicense foreign governments pursuant to any existing or future treaty or agreement with such foreign governments.

(iv) Subject to the rights granted in subparagraphs (d)(1), (2), and (3) of this clause, the Secretary of Energy or designee shall have the right to terminate the foreign patent rights granted in this subparagraph (d)(4) in whole or in part unless the recipient of such rights demonstrates to the satisfaction of the Secretary of Energy or designee that effective steps necessary to accomplish substantial utilization of the invention have been taken or within a reasonable time will be taken.

(v) Subject to the right granted in subparagraphs (d)(1), (2), and (3) of this clause, the Secretary of Energy or designee shall have the right, commencing four years after foreign patent rights are accorded under this subparagraph (d)(4), to require the granting of a nonexclusive or partially exclusive license to a responsible applicant or applicants, upon terms reasonable under the circumstances to terminate said foreign patent rights in whole or in part, following a hearing upon notice thereof to the public upon a petition by an interested person justifying such hearing:

(A) If the Secretary of Energy or designee determines, upon review of such material as he deems relevant, and after the recipient of such rights or other interested person has had the opportunity to provide such relevant and material information as the Secretary or designee may require, that such foreign patent rights have tended substantially to lessen competition or to result in undue market concentration in any section of the United States in any line of commerce to which the technology relates; or

(B) Unless the recipient of such rights demonstrates to the satisfaction of the Secretary of Energy or designee at such hearing that the recipient has taken effective steps, or within a reasonable time thereafter is expected to take such steps, necessary to accomplish substantial utilization of the invention.

(vi) If the contractor is to file a foreign patent application on a subject invention, the Government agrees, upon written request, to use its best efforts to withhold publication of such invention disclosures for such period of time specified by Patent Counsel, but in no event shall the Government or its employees be liable for any publication thereof.

(vii) Subject to the license specified in subparagraphs (d)(1), (2), and (3) of this clause, the contractor or inventor agrees to convey to the Government, upon request, the entire right, title, and interest in any foreign country in which the contractor or inventor fails to have a patent application filed in a timely manner or decides not to continue prosecution or to pay any maintenance fees covering the invention. To avoid forfeiture of the patent application or patent, the contractor or inventor shall, not less than 60 days before the expiration period for any action required by any patent office, notify the Patent Counsel of such failure or decision, and deliver to the Patent Counsel the executed instruments necessary for the conveyance specified in this paragraph.

(e) *Invention identification, disclosures, and reports.*

(1) The Contractor shall establish and maintain active and effective procedures to assure that subject inventions are promptly identified and disclosed to Contractor personnel responsible for patent matters within 6

months of conception and/or first actual reduction to practice, whichever occurs first in the performance of work under this contract. These procedures shall include the maintenance of laboratory notebooks or equivalent records and other records as are reasonably necessary to document the conception and/or the first actual reduction to practice of subject inventions, and records that show that the procedures for identifying and disclosing the inventions are followed. Upon request, the Contractor shall furnish the Contracting Officer a description of such procedures for evaluation and for determination as to their effectiveness.

(2) The Contractor shall disclose each subject invention to the DOE Patent Counsel with a copy to the Contracting Officer within 2 months after the inventor discloses it in writing to Contractor personnel responsible for patent matters or, if earlier, within 6 months after the Contractor personnel responsible for patent matters or, if earlier, within 6 months after the Contractor becomes aware that a subject invention has been made, but in any event before any on sale, public use, or publication, of such invention known to the Contractor. The disclosure to DOE shall be in the form of written report and shall identify the contract under which the invention was made and the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding, to the extent known at the time of the disclosure, of the nature, purpose, operation, and physical, chemical, biological, or electrical characteristics of the invention. The disclosure shall also identify any publication or of any on sale or public use planned by the Contractor. The report should also include any request for a greater rights determination in accordance with subparagraph (b)(2) of this clause. When an invention is disclosed to DOE under this paragraph, it shall be deemed to have been made in the manner specified in Section (a)(1) and (a)(2) of 42 U.S.C. 5908, unless the Contractor contends in writing at the time the invention is disclosed that it was not so made.

(3) The Contractor shall furnish the Contracting Officer the following:

(i) Interim reports every 12 months (or such longer period as may be specified by the Contracting Officer) from the date of the contract, listing subject inventions during that period, and certifying that all subject inventions have been disclosed (or that there are not such inventions) and that the procedures required by subparagraph (e)(1) of this clause have been followed.

(ii) A final report, within 3 months after completion of the contracted work listing all subject inventions or certifying that

there were no such inventions, and listing all subcontracts at any tier containing a patent rights clause or certifying that there were no such subcontracts.

(4) The Contractor agrees to require by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the Contractor each subject invention made under contract in order that the Contractor can comply with the disclosure provisions of paragraph (c) of this clause, and to execute all papers necessary to file applications on subject inventions. This disclosure format should require, as a minimum, the information required by subparagraph (e)(2) of this clause.

(5) The Contractor agrees, subject to FAR 27.302(j), that the Government may duplicate and disclose subject inventions disclosures and all other reports and papers furnished or required to be furnished pursuant to this clause.

(f) *Examination of records relating to inventions.*

(1) The Contracting Officer or any authorized representative shall, until 3 years after final payment under this contract, have the right to examine any books (including laboratory notebooks), records, and documents of the Contractor relating to the conception or first actual reduction to practice of inventions in the same field of technology as the work under this contract to determine whether

(i) Any such inventions are subject inventions;

(ii) The Contractor has established and maintains the procedures required by subparagraphs (e)(1) and (4) of this clause; complied with the procedures.

(iii) The Contractor and its inventors have complied with the procedures.

(2) If the Contracting Officer learns of an unreported Contractor invention which the Contracting Officer believes may be a subject invention, the Contractor may be required to disclose the invention to DOE for a determination of ownership rights.

(3) Any examination of records under this paragraph will be subject to appropriate conditions to protect the confidentiality of the information involved.

(g) *Withholding of payment.* (This paragraph does not apply to subcontracts).

(1) Any time before final payment under this contract, the Contracting Officer may, in the Government's interest, withhold payment until reserve not exceeding \$50,000 or 5 percent of the amount of this contract, whichever is less, shall have been set aside if, in the Contracting Officer's opinion, the Contractor fails to

(i) Convey to the Government, using a DOE-approved form, the title and/or rights of the Government in each subject invention as required by this clause.

(ii) Establish, maintain, and follow effective procedures for identifying and disclosing subject inventions pursuant to subparagraph (e)(1) of this clause;

(iii) Disclose any subject invention pursuant to subparagraph (e)(2) of this clause;

(iv) Deliver acceptable interim reports pursuant to subparagraph (e)(3)(i) of this clause; or

(v) Provide the information regarding subcontracts pursuant to subparagraph (h)(4) of this clause.

(2) Such reserve or balance shall be withheld until the Contracting Officer has determined that the Contractor has rectified whatever deficiencies exist and has delivered all reports, disclosures, and other information required by this clause.

(3) Final payment under this contract shall not be made before the Contractor delivers to the Contracting Officer all disclosures of subject inventions required by subparagraph (e)(2) of this clause, and acceptable final report pursuant to subparagraph (e)(3)(ii) of this clause, and the Patent Counsel has issued a patent clearance certification to the Contracting Officer.

(4) The Contracting Officer may decrease or increase the sums withheld up to the maximum authorized above. No amount shall be withheld

under this paragraph while the amount specified by this paragraph is being withheld under other provisions of the contract. The withholding of any amount or the subsequent payment thereof shall not be construed as a waiver of any Government rights.

(h) *Subcontracts.*

(1) The contractor shall include the clause at 48 CFR 952.227-11 (suitably modified to identify the parties) in all subcontracts, regardless of tier, for experimental, developmental, demonstration, or research work to be performed by a small business firm or domestic nonprofit organization, except where the work of the subcontract is subject to an Exceptional Circumstances Determination by DOE. In all other subcontracts, regardless of tier, for experimental, developmental, demonstration, or research work, the contractor shall include this clause (suitably modified to identify the parties). The contractor shall not, as part of the consideration for awarding the subcontract, obtain rights in the subcontractor's subject inventions.

(2) In the event of a refusal by a prospective subcontractor to accept such a clause the Contractor

(i) Shall promptly submit a written notice to the Contracting Officer setting forth the subcontractor's reasons for such refusal and other pertinent information that may expedite disposition of the matter; and

(ii) Shall not proceed with such subcontract without the written authorization of the Contracting Officer.

(3) In the case of subcontracts at any tier, DOE, the subcontractor, and Contractor agree that the mutual obligations of the parties created by this clause constitute a contract between the subcontractor and DOE with respect to those matters covered by this clause.

(4) The Contractor shall promptly notify the Contracting Officer in writing upon the award of any subcontract at any tier containing a patent rights clause by identifying the subcontractor, the applicable patent rights clause, the work to be performed under the subcontract, and the dates of award and estimated completion. Upon request of the Contracting Officer, the Contractor shall furnish a copy of such subcontract, and no more frequently than annually, a listing of the subcontracts that have been awarded.

(5) The contractor shall identify all subject inventions of the subcontractor of which it acquires knowledge in the performance of this contract and shall notify the Patent Counsel, with a copy to the contracting officer, promptly upon identification of the inventions.

(i) *Preference United States industry.* Unless provided otherwise, no Contractor that receives title to any subject invention and no assignee of any such Contractor shall grant to any person the exclusive right to use or sell any subject invention in the United States unless such person agrees that any products embodying the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement may be waived by the Government upon a showing by the Contractor or assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.

(j) *Atomic energy.*

(1) No claim for pecuniary award of compensation under the provisions of the Atomic Energy Act of 1954, as amended, shall be asserted with respect to any invention or discovery made or conceived in the course of or under this contract.

(2) Except as otherwise authorized in writing by the Contracting Officer, the Contractor will obtain patent agreements to effectuate the provisions of subparagraph (e)(1) of this clause from all persons who perform any part of the work under this contract, except nontechnical personnel, such as clerical employees and manual laborers.

(k) *Background Patents.*

(1) "Background Patent" means a domestic patent covering an invention or discovery which is not a subject invention and which is owned or controlled by the Contractor at any time through the completion of this contract:

(i) Which the contractor, but not the Government, has the right to license to others without obligation to pay royalties thereon, and

(ii) Infringement of which cannot reasonably be avoided upon the practice of any specific process, method, machine, manufacture, or composition of matter (including relatively minor modifications thereof) which is a subject of the research, development, or demonstration work performed under this contract.

(2) The Contractor agrees to and does hereby grant to the Government a royalty-free, nonexclusive license under any background patent for purpose of practicing a subject of this contract by or for the Government in research, development, and demonstration work only.

(3) The Contractor also agrees that upon written application by DOE, it will grant to responsible parties, for purpose of practicing a subject of this contract, nonexclusive licenses under any background patent on terms that are reasonable under the circumstances. If however, the Contractor believes that exclusive rights are necessary to achieve expeditious commercial development or utilization, then a request may be made to DOE for DOE approval of such licensing by the Contractor.

(4) Notwithstanding subparagraph (k)(3) of this clause, the contractor shall not be obligated to license any background patent if the Contractor demonstrates to the satisfaction of the Secretary of Energy or designee that:

(i) A competitive alternative to the subject matter covered by said background patent is commercially available or readily introducible from one or more other sources; or

(ii) The Contractor or its licensees are supplying the subject matter covered by said background patent in sufficient quantity and at reasonable prices to satisfy market needs, or have taken effective steps or within a reasonable time are expected to take effective steps to so supply the subject matter.

(l) *Publication.* It is recognized that during the course of the work under this contract, the Contractor or its employees may from time to time desire to release or publish information regarding scientific or technical developments conceived or first actually reduced to practice in the course of or under this contract. In order that public disclosure of such information will not adversely affect the patent interests of DOE or the Contractor, patent approval for release of publication shall be secured from Patent Counsel prior to any such release or publication.

(m) *Forfeiture of rights in unreported subject inventions.*

(1) The Contractor shall forfeit and assign to the Government, at the request of the Secretary of Energy or designee, all rights in any subject invention which the Contractor fails to report to Patent Counsel within six months after the time the Contractor:

(i) Files or causes to be filed a United States or foreign patent application thereon; or

(ii) Submits the final report required by subparagraph (e)(2)(ii) of this clause, whichever is later.

(2) However, the Contractor shall not forfeit rights in a subject invention if, within the time specified in subparagraph (m)(1) of this clause, the Contractor:

(i) Prepares a written decision based upon a review of the record that the invention was neither conceived nor first actually reduced to practice in the course of or under the contract and delivers the decision to Patent Counsel, with a copy to the Contracting Officer; or

(ii) Contending that the invention is not a subject invention, the Contractor nevertheless discloses the invention and all facts pertinent to this contention to the Patent Counsel, with a copy to the Contracting Officer; or

(iii) Establishes that the failure to disclose did not result from the Contractor's fault or negligence.

(3) Pending written assignment of the patent application and patents on a subject invention determined by the Secretary of Energy or designee to be forfeited (such determination to be final decision under the Disputes clause of this contract), the Contractor shall be deemed to hold the invention and the patent applications and patents pertaining thereto in trust for the Government. The forfeiture provision of this paragraph (m) shall be in addition to and shall not supercede other rights and remedies which the Government may have with respect to subject inventions.

2. **952.227-84 Right to Request Patent Waiver. (APR 1984)**

Pursuant to 927.7005, include this provision in all solicitations which may result in contracts calling for research, development, or demonstration work.

RIGHT TO REQUEST PATENT WAIVER (APR 1984)

Offerors and prospective contractors, in accordance with applicable statutes and the Department of Energy Acquisition Regulation, have the right to request, in advance of or within 30 days after the effective date of contracting, a waiver of all or any part of the rights of the United States in subject inventions. Small business firms and domestic nonprofit organizations normally will receive the Patent Rights clause of 952.227-11 which permits the contractor to retain title to subject inventions, except in contracts for management or operation of a Government-owned research or production facility and in contracts involving exceptional circumstances or intelligence activities. Therefore small business firms and nonprofit organizations normally need not request a waiver.

3. **Advance Waiver of Patent Rights**

(a) Definitions.

(1) "Subject Invention" means any invention or discovery of the Contractor conceived or first actually reduced to practice in the course of or under this contract, and includes any art, method, process, machine, manufacture, design, or composition of matter, or any new and useful improvement thereof, or any variety of plants, whether patented or unpatented under the Patent Laws of the United States of America or any foreign country.

(2) "Contract" means any contract, grant, agreement, understanding, or other arrangement, which includes research, development, or demonstration work, and includes any assignment or substitution of parties.

(3) "Government agency" includes an executive department, independent commission, board, office, agency, administration, authority, Government corporation, or other Government establishment of the Executive Branch of the Government of the United States of America.

(4) "To the point of practical application" means to manufacture in the case of a composition or product, to practice in the case of a process, or to operate in the case of a machine and under such conditions as to establish that the invention is being worked and that its benefits are reasonably accessible to the public.

(5) "Patent Counsel" means the DOE Patent Counsel assisting the procuring activity.

(b) Allocation of principal rights.

(1) Assignment to the Government. The Contractor agrees to assign to the Government the entire right, title, and interest throughout the world in and to each Subject Invention, except to the extent that rights are waived to and retained by the Contractor under paragraphs (b)(2) and (c) of this clause.

(2) Greater rights determinations. The Contractor or the employee-inventor with authorization of the Contractor may request greater rights than the domestic and foreign patent rights provided in paragraph (c) of this clause on identified inventions in accordance with 41 CFR 9-9.109-6. Such requests must be submitted to Patent Counsel (with notification by Patent Counsel to the Contracting Officer) at the time of the first disclosure pursuant to paragraph (e)(2) of this clause, or not later than 9 months after conception or first actual reduction to practice, whichever occurs first, or such longer period as may be authorized by Patent Counsel (with notification by Patent Counsel to the Contracting Officer) for good cause shown in writing by the Contractor.

c) Rights to the Contractor.

(1) Minimum Contractor license. The Contractor reserves an irrevocable, nonexclusive, paid-up license in each patent application filed in any country on a Subject Invention and any resulting patent in which the Government acquires title. The license shall extend to the Contractor's domestic subsidiaries and affiliates, if any, within the corporate structure of which the Contractor is a part and shall include the right to grant sublicenses of the same scope to the extent the Contractor was legally obligated to do so at the time the contract was awarded. The license shall be transferable only with approval of DOE except when transferred to the successor of that part of the Contractor's business to which the invention pertains.

(2) Election to retain waived rights.

(i) Subject to the provisions of paragraph (c)(3) and paragraph (d) of this clause, with respect only to a Subject Invention reported in accordance with paragraph (e)(2)(i) of this clause and with the written report of which is included an election as to whether the Contractor will retain the rights in the invention waived therein, the Contractor reserves the entire domestic right, title and interest in any United States patent application on the Subject Invention filed and any resulting United States patent secured by the Contractor.

(ii) Subject to the provisions of paragraph (c)(3) and paragraph (d) of this clause, with respect only to a Subject Invention reported in accordance with paragraph (e)(2)(i) of this clause and with the written report of which is included an election as to whether the Contractor will retain the rights in the invention waived herein and a statement specifying those foreign countries in which such rights will be retained, and subject to DOE security regulations and requirements, the Contractor reserves the entire right, title and interest in any foreign patent application on the Subject Invention filed and any resulting foreign patent secured by the Contractor in those foreign countries specified.

(3) Terms and Conditions of Waived Rights.

(i) Subject to the rights granted in paragraph (c)(1) of this clause, the Contractor agrees to convey to the Government, upon request, the entire domestic right, title, and interest in any Subject Invention when the Contractor:

(A) Does not elect pursuant to paragraph (c)(2)(i) of this clause to retain such rights;

(B) Fails to have a United States patent application filed on the invention in accordance with paragraph (d)(1) of this clause, or decides not to continue prosecution of such application; or

(C) At any time, no longer desires to retain title.

(ii) Subject to the rights granted in paragraph (c)(1) of this clause, the Contractor agrees to convey to the Government, upon

request, the entire right, title, and interest in any Subject Invention in any foreign country if the Contractor:

(A) Does not elect pursuant to paragraph (c)(2)(ii) of this clause to retain such rights in the country; or

(B) Fails to have a patent application filed in the country on the Subject Invention in accordance with paragraph (d)(3) of this clause, or decides not to continue prosecution or to pay any maintenance fees covering the invention. To avoid forfeiture of the patent application or patent, the Contractor shall notify the Patent Counsel not less than 60 days before the expiration period for any action required by the foreign Patent Office.

(iii) Conveyance requested pursuant to paragraphs (c)(3)(i) and (c)(3)(ii) of this clause shall be made by delivering to the Patent Counsel duly executed instruments and such other papers as are deemed necessary to vest in the Government the entire right, title, and interest in the invention to enable the Government to apply for and prosecute patent applications covering the invention in this or the foreign country, respectively, or otherwise establish its ownership of the invention.

(iv) For each invention in which the Contractor initially elects pursuant to (c)(2)(i) or (c)(2)(ii) of this clause not to retain the rights waived, the Contractor shall inform the Patent Counsel promptly in writing of the date and identity of any on sale, public use, or public disclosure of the invention which may constitute a statutory bar under 35 USC 102, which was authorized by or known to the Contractor, or any contemplated action of this nature.

(v) Government License With respect to any Subject Invention in which the Contractor retains title, the Federal Government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the Subject Invention throughout the world.

(vi) Reporting on Utilization of Subject Inventions The Contractor agrees to submit on request periodic reports no more frequently than annually on the utilization of a Subject Invention or on efforts at obtaining such utilization that are being made by

the Contractor or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the Contractor, and such other data and information as DOE may reasonably specify. The Contractor also agrees to provide additional reports as may be requested by DOE in connection with any march-in proceeding undertaken by DOE in accordance with paragraph (c)(3)(viii) of this clause. To the extent data or information supplied under this paragraph is considered by the Contractor, its licensee or assignee to be privileged and confidential and is so marked, DOE agrees that, to the extent permitted by 35 USC 202(c)(5), it will not disclose such information to persons outside the Government.

(vii) Preference for United States Industry Notwithstanding any other provision of this clause, the Contractor agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any Subject Invention in the United States unless such person agrees that any products embodying the Subject Invention or produced through the use of the Subject Invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by DOE upon a showing by the Contractor or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.

(viii) March-in Rights The Contractor agrees that with respect to any Subject Invention in which it has acquired title, DOE has the right in accordance with the procedures in 37 CFR 401.6 and any supplemental regulations of DOE to require the Contractor, an assignee or exclusive licensee of a Subject Invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the Contractor, assignee, or exclusive licensee refuses such a request, DOE has the right to grant such a license itself if DOE determines that:

- (1) Such action is necessary because the Contractor or assignee has not taken, or is not expected to take within a

reasonable time, effective steps to achieve practical application of the Subject Invention in such field of use;

(2) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Contractor, assignee, or their licensees;

(3) Such action is necessary to meet requirements for public use specified by federal regulations and such requirements are not reasonably satisfied by the Contractor, assignee, or licensees; or

(4) Such action is necessary because the agreement required by paragraph (c)(3)(vii) of this clause has not been obtained or waived or because a licensee of the exclusive right to use or sell any Subject Invention in the United States is in breach of such agreement.

(ix) U. S. COMPETITIVENESS The Contractor agrees that any products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States unless the Contractor can show to the satisfaction of the DOE that it is not commercially feasible to do so. In the event the DOE agrees to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized in some appropriate manner, e.g., recoupment of the Government's investment, etc. The Contractor agrees that it will not license, assign or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements. Should the Contractor or other such entity receiving rights in the invention undergo a change in ownership amounting to a controlling interest, then the waiver, assignment, license, or other transfer of rights in the waived invention is suspended until approved in writing by the DOE.

(4) Terminations.

(i) Any waiver or retention of rights by the Contractor under paragraphs (b)(2), (c)(1), or (c)(2) of this clause may be terminated at the discretion of the Secretary or his designee, in whole or in part, if the request for waiver or retention of rights by the Contractor is found to contain false material statements or

nondisclosure of material facts, and such were specifically relied upon in reaching the waiver determination or the agreement to the retention of rights by the Contractor.

(ii) Any waiver of the rights retained in accordance with paragraph (c)(2), as applied to particular inventions, may be terminated at the discretion of the Secretary or his designee, in whole or in part, if the Contractor fails to comply with the provisions set forth in paragraph (c)(3) and paragraph (d) of this clause, and such failure is determined by the Secretary or his designee to be material and detrimental to the interests of the United States and the general public.

(iii) Prior to terminating any waiver of rights under paragraph (c)(4)(i) or (c)(4)(ii) of this clause, the Contractor will be given written notice of the intention to terminate the waiver of rights, the extent of such proposed termination and the reasons therefor, and a period of 30 days, or such longer period as the Secretary or his designee shall determine for good cause shown in writing, to show cause why the waiver of rights should not be so terminated.

(iv) All terminations of waivers of rights under paragraph (c)(4)(ii) shall be subject to the rights granted in paragraph (c)(1) of this clause, and termination shall normally be partial in nature, requiring the Contractor to grant nonexclusive or partially exclusive licenses to responsible applicants upon terms reasonable under the circumstances.

(5) Effective Date of Waivers.

The waiver of rights in a Subject Invention shall be effective on the following dates:

(i) For advance waivers of identified inventions, i.e., inventions conceived prior to the effective date of the contract, on the effective date of the contract even though the advance waiver may have been requested after that date;

(ii) For identified inventions under advance waivers, i.e., inventions conceived or first actually reduced to practice after the effective date of the contract, on the date the invention is reported with the election to retain the waived rights in that invention; and

(iii) For waivers of identified inventions (other than under an advance waiver), on the date of the letter notifying the requestor that the waiver has been granted.

(d) Filing of patent applications.

(1) With respect to each Subject Invention in which the Contractor elects to retain domestic rights pursuant to paragraph (c)(2)(i) of this clause, the Contractor shall have a domestic patent application filed on the invention within 6 months after submission of the invention disclosure pursuant to paragraph (e)(2)(i) of this clause, or such longer period of time as may be approved by the Patent Counsel for good cause shown in writing by the Contractor. For each identified invention, the rights in which are waived to the Contractor, the Contractor shall have a domestic patent application filed on the invention within 6 months after the waiver has become effective. With respect to the invention, the Contractor shall promptly notify the Patent Counsel of any decision not to file an application.

(2) For each Subject Invention on which a domestic patent application is filed by the Contractor, the Contractor shall:

(i) Within 2 months after the filing or within 2 months after submission of the invention disclosure if the patent application previously has been filed, deliver to Patent Counsel a copy of the application as filed including the filing date and serial number;

(ii) Within 6 months after filing the application or within 6 months after submitting the invention disclosure if the application has been filed previously, deliver to the Patent Counsel a duly executed and approved instrument fully confirmatory of all rights to which the Government is entitled, and provide DOE an irrevocable power to inspect and make copies of the patent application filed;

(iii) Provide the Patent Counsel with a copy of the patent within 2 months after a patent is issued on the application;

(iv) Not less than 30 days before the expiration of the response period for any action required by the Patent and Trademark Office, notify the Patent Counsel of any decision not to continue prosecution of the application and deliver to the Patent Counsel

executed instruments granting the Government a power of attorney; and

(v) Include the following statement in the second paragraph of the specification of the application and any patents issued on a Subject Invention, "The Government of the United States of America has rights in this invention pursuant to Contract No. _____ (or Grant No. _____) awarded by the U.S. Department of Energy".

(3) With respect to each Subject Invention in which the Contractor has elected pursuant to paragraph (c)(2)(ii) of this clause to retain the patent rights waived in specified foreign countries, or in which the Contractor has obtained a waiver of foreign rights on an identified invention:

(i) The Contractor shall file a patent application on the invention in each specified foreign country in accordance with applicable statutes and regulations and within one of the following periods:

(A) Eight months from the date of filing a corresponding United States application, or if such an application is not filed, six months from the date the invention is submitted in a disclosure pursuant to paragraph (e)(2)(i) of this clause;

(B) Six months from the date a license is granted by the Commissioner of Patents and Trademarks to file the foreign patent application where such filing has been prohibited by security reasons; or

(C) Such longer period as may be approved by the Patent Counsel for good cause shown in writing by the Contractor.

(ii) The Contractor shall notify the Patent Counsel promptly of each foreign application filed and upon written request shall furnish an English version of the application without additional compensation.

(e) Invention identification, disclosures, and reports.

(1) The Contractor shall establish and maintain active and effective procedures to ensure that Subject Inventions are promptly identified and

timely disclosed. Those procedures shall include the maintenance of laboratory notebooks or equivalent records and any other records that are reasonably necessary to document the conception and/or the first actual reduction to practice of subject Inventions, and records which show that the procedures for identifying and disclosing the inventions are followed. Upon request, the Contractor shall furnish the Contracting Officer a description of these procedures so that he may evaluate and determine their effectiveness.

(2) The Contractor shall furnish the Patent Counsel (with notification by Patent Counsel to the Contracting Office) on a DOE-approved form:

(i) A written report containing full and complete technical information concerning each Subject Invention within 6 months after conception or first actual reduction to practice whichever occurs first in the course of or under this contract, but in any event prior to any on sale, public use or public disclosure of such inventions known to the Contractor. The report shall identify the contract and inventor and shall be sufficiently complete in technical detail and appropriately illustrated by sketch or diagram to convey to one skilled in the art to which the invention pertains a clear understanding of the nature, purpose, operation, and to the extent known, the physical, chemical, biological, or electrical characteristics of the invention. The report should also include any election of foreign patent rights under paragraph (c)(2)(ii) of this clause and any election of rights under paragraph (c)(2)(i) of this clause. Any requests for greater rights shall be made within the period set forth in paragraph (b)(2) of this clause. When an invention is reported under this paragraph (e)(2)(i), it shall be presumed to have been made in the manner specified in Section (a)(1) and (2) of 42 USC 5908 unless the Contractor contends it was not so made in accordance with paragraph (g)(2)(ii) of this clause.

(ii) Upon request, but not more than annually, interim reports on a DOE-approved form listing Subject Inventions and subcontracts awarded containing a Patent Rights clause for that period and certifying that:

(A) The Contractor's procedures for identifying and disclosing Subject Inventions as required by this paragraph (e) have been followed throughout the reporting period;

(B) All Subject Inventions have been disclosed or that there are no such inventions;

(C) All subcontracts containing a Patent Rights clause have been reported or that no such subcontracts have been awarded; and

(iii) A final report on a DOE-approved form within 3 months after completion of the contract work listing all Subject Inventions and all subcontracts awarded containing a Patent Rights clause and certifying that:

(A) All Subject Inventions have been disclosed or that there were no such inventions; and

(B) All subcontracts containing a Patent Rights clause have been reported or that no such subcontracts have been awarded.

(3) The Contractor shall obtain patent agreements to effectuate the provisions of this clause from all persons in its employ who perform any part of the work under this contract except nontechnical personnel, such as clerical employees and manual laborers.

(4) The Contractor agrees that the Government may duplicate and disclose Subject Invention disclosures and all other reports and papers furnished or required to be furnished pursuant to this clause. If the Contractor is to file a foreign patent application on a Subject Invention, the Government agrees, upon written request, to use its best efforts to withhold publication of such invention disclosures until the expiration of the time period specified in paragraph (d)(1) of this clause, but in no event shall the Government or its employees be liable for any publication thereof.

(f) Publication.

It is recognized that during the course of the work under this contract, the Contractor or its employees may from time to time desire to release or publish information regarding scientific or technical developments conceived or first actually reduced to practice in the course of or under this contract. In order that

public disclosure of such information will not adversely affect the patent interests of DOE or the Contractor, patent approval for release or publication shall be secured from Patent Counsel prior to any such release or publication.

(g) Forfeiture of rights in unreported Subject Inventions.

(1) The Contractor shall forfeit to the Government, at the request of the Secretary or his designee, all rights in any Subject Invention which the Contractor fails to report to Patent Counsel (with notification by Patent Counsel to the Contracting Officer) within six months after the time the Contractor:

(i) Files or causes to be filed a United States or foreign patent application thereon; or

(ii) Submits the final report required by paragraph (e)(2)(ii) of this clause, whichever is later.

(2) However, the Contractor shall not forfeit rights in a Subject Invention if, within the time specified in (1)(i) or (1)(ii) of this paragraph (g), the Contractor:

(i) Prepared a written decision based upon a review of the record that the invention was neither conceived nor first actually reduced to practice in the course of or under the contract and delivers the same to Patent Counsel (with notification by Patent Counsel to the Contracting Officer); or

(ii) Contending that the invention is not a Subject Invention the Contractor nevertheless discloses the invention and all facts pertinent to this contention to the Patent Counsel (with notification by Patent Counsel to the Contracting Officer); or

(iii) Establishes that the failure to disclose did not result from the Contractor's fault or negligence.

(3) Pending written assignment of the patent applications and patents on a Subject Invention determined by the Secretary or his designee to be forfeited (such determination to be a final decision under the Disputes Clause of this contract), the Contractor shall be deemed to hold the invention and the patent applications and patents pertaining thereto in trust for the Government. The forfeiture provision of this paragraph (g)

shall be in addition to and shall not supersede other rights and remedies which the Government may have with respect to Subject Invention.

(h) Examination of records relating to inventions.

(1) The Contracting Officer or his authorized representative, until the expiration of 3 years after final payment under this contract, shall have the right to examine any books (including laboratory notebooks), records, documents, and other supporting data of the Contractor which the Contracting Officer or his authorized representative reasonably deem pertinent to the discovery or identification of Subject Inventions or to determine compliance with the requirements of this clause.

(2) The Contracting Officer or his authorized representative shall have the right to examine all books (including laboratory notebooks), records and documents of the Contractor relating to the conception or first actual reduction to practice of inventions in the same field of technology as the work under this contract to determine whether any such inventions are Subject Inventions, if the Contractor refuses or fails to:

(i) Establish the procedures of paragraph (e)(1) of this clause; or

(ii) Maintain and follow such procedures; or

(iii) Correct or eliminate any material deficiency in the procedures within thirty (30) days after the Contracting Officer notifies the Contractor of such a deficiency.

(i) Withholding of payment (not applicable to subcontracts).

(1) Any time before final payment of the amount of this contract, the Contracting Officer may, if he deems such action warranted, withhold payment until a reserve not exceeding \$50,000 or 5 percent of the amount of this contract, whichever is less, shall have been set aside if in his opinion the Contractor fails to:

(i) Establish, maintain and follow effective procedures for identifying and disclosing Subject Inventions pursuant to paragraph (e)(1) of this clause; or

(ii) Disclose any Subject Invention pursuant to paragraph (e)(2)(i) of this clause; or

(iii) Deliver the interim reports pursuant to paragraph (e)(2)(ii) of this clause; or

(iv) Provide the information regarding subcontracts pursuant to paragraph (j)(5) of this clause; or

(v) Convey to the Government in a DOE-approved form the title and/or rights of the Government in each Subject Invention as required by this clause.

(2) The reserve or balance shall be withheld until the Contracting Officer has determined that the Contractor has rectified whatever deficiencies exist and has delivered all reports, disclosures, and other information required by this clause.

(3) Final payment under this contract shall not be made by the Contracting Officer before the Contractor delivers to Patent Counsel all disclosures of Subject Inventions and other information required by (e)(2)(i) of this clause, the final report required by (e)(2)(iii) of this clause, and Patent Counsel has issued a patent clearance certification to the Contracting Officer.

(4) The Contracting Officer may, in his direction, decrease or increase the sums withheld up to the maximum authorized above. If the Contractor is a nonprofit organization, the maximum amount that may be withheld under this paragraph shall not exceed \$50,000 or 1 percent of the amount of this contract, whichever is less. No amount shall be withheld under this paragraph while the amount specified by this paragraph is being withheld under other provisions of the contract. The withholding of any amount or subsequent payment thereof shall not be construed as a waiver of any rights accruing to the Government under this contract.

(j) Subcontracts.

(1) For the purpose of this paragraph the term "Contractor" means the party awarding a subcontract and the term "Subcontractor" means the party being awarded a subcontract, regardless of tier.

(2) The Contractor will include the Patent Rights clause of DEAR 952.227-11 suitably modified to identify the parties in all subcontracts, regardless of tier, for experimental, developmental or research work to be performed by a small business or a domestic nonprofit organization.

In all other subcontracts, regardless of tier, for experimental, developmental demonstration, or research work, the Contractor shall include the Patent Rights article of DEAR 952.227-13 as appropriate, modified to identify the parties.

(3) Except as may be otherwise provided in this clause, the Contractor shall not, in any subcontract or by using a subcontract as consideration therefor, acquire any rights in its subcontractor's Subject Invention for the Contractor's own use (as distinguished from such rights as may be required solely to fulfill the Contractor's contract obligations to the Government in the performance of this contract).

(4) All invention disclosures, reports, instruments, and other information required to be furnished by the Subcontractor to DOE, under the provisions of a Patent Rights clause in any subcontract hereunder may, in the discretion of the Contracting Officer, be furnished to the Contractor for transmission to DOE.

(5) The Contractor shall promptly notify the Contracting Officer in writing upon the award of any subcontract containing a Patent Rights clause by identifying the Subcontractor, the work to be performed under the subcontract, and the dates of award, and estimated completion. Upon the request of the Contracting Officer the Contractor shall furnish him a copy of the subcontract.

(6) The Contractor shall identify all Subject Inventions of the Subcontractor of which it acquires knowledge in the performance of this contract and shall notify the Patent Counsel (with notification by Patent Counsel to the Contracting Officer) promptly upon the identification of the inventions.

(7) It is understood that the Government is a third party beneficiary of any subcontract clause granting rights to the Government in Subject Inventions, and the Contractor hereby assigns to the Government all rights that the Contractor would have to enforce the Subcontractor's obligations for the benefit of the Government with respect to Subject Inventions. The Contractor shall not be obligated to enforce the agreements of any Subcontractor hereunder relating to the obligations of the Subcontractor to the Government regarding Subject Inventions.

(k) Background Patents.

(1) "Background Patent" means a domestic patent covering an invention or discovery which is not a Subject Invention and which is owned or controlled by the Contractor at any time through the completion of this contract:

- (i) Which the Contractor, but not the Government, has the right to license to others without obligation to pay royalties thereon, and

- (ii) Infringement of which cannot reasonably be avoided upon the practice of any specific process, method, machine, manufacture or composition of matter (including relatively minor modifications thereof) which is a subject of the research, development, or demonstration work performed under this contract.

(2) The Contractor agrees to and does hereby grant to the Government a royalty-free, nonexclusive license under any Background Patent for purposes of practicing a subject of this contract by or for the Government in research, development, and demonstration work only.

(3) The Contractor also agrees that upon written application by DOE, it will grant to responsible parties for purposes of practicing a subject of this contract nonexclusive licenses under any Background Patent on terms that are reasonable under the circumstances. If, however, the Contractor believes that exclusive or partially exclusive rights are necessary to achieve expeditious commercial development or utilization, then a request may be made to DOE for DOE approval of such licensing by the Contractor.

(4) Notwithstanding the foregoing paragraph (k)(3), the Contractor shall not be obligated to license any Background Patent if the Contractor demonstrates to the satisfaction of the Secretary or his designee that:

- (i) a competitive alternative to the subject matter covered by said Background Patent is commercially available or readily introducible from one or more other sources; or

- (ii) the Contractor or its licensees are supplying the subject matter covered by said Background Patent in sufficient quantity and at reasonable prices to satisfy market needs, or have taken effective steps or within a reasonable time are expected to take effective steps to so supply the subject matter.

(l) Atomic Energy.

(1) No claim for pecuniary award or compensation under the provisions of the Atomic Energy Act of 1954, as amended, shall be asserted by the Contractor or its employees with respect to any invention or discovery made or conceived in the course of or under this contract.

(2) Except as otherwise authorized in writing by the Contracting Officer, the Contractor will obtain patent agreements to effectuate the provisions of paragraph (l)(1) of this clause from all persons who perform any part of the work under this contract, except nontechnical personnel, such as clerical employees and manual laborers.

(m) Limitation of rights.

Nothing contained in this Patent Rights clause shall be deemed to give the Government any rights with respect to any invention other than a subject invention except as set forth in the Patent Rights clause of this contract with respect to Background Patents and the Facilities License.

4. **52.227-3 Patent Indemnity. (APR 1984)**

Insert the following clause as prescribed at 27.203-1(b), 27.203-2(a), or 27.203-4(a)(2) as applicable:

PATENT INDEMNITY (APR 1984)

(a) The Contractor shall indemnify the Government and its officers, agents, and employees against liability, including costs, for infringement of any United States patent (except a patent issued upon an application that is now or may hereafter be withheld from issue pursuant to a Secrecy Order under 35 U.S.C. 181) arising out of the manufacture or delivery of supplies, the performance of services, or the construction, alteration, modification, or repair of real property (hereinafter referred to as "construction work") under this contract, or out of the use or disposal by or for the account of the Government of such supplies or construction work.

(b) This indemnity shall not apply unless the Contractor shall have been informed as soon as practicable by the Government of the suit or action alleging such infringement and shall have been given such opportunity as is afforded by applicable laws, rules, or regulations to participate in its defense. Further, this indemnity shall not apply to:

(1) an infringement resulting from compliance with specific written instructions of the Contracting Officer directing a change in the supplies to be delivered or in the materials or equipment to be used, or directing a manner of performance of the contract not normally used by the Contractor;

(2) an infringement resulting from addition to or change in supplies or components furnished or construction work performed that was made subsequent to delivery or performance; or

(3) a claimed infringement that is unreasonably settled without the consent of the Contractor, unless required by final decree of a court of competent jurisdiction.

ALTERNATES

4. **52.227-3 Patent Indemnity. (APR 1984) -- Alternate I (APR 1984)**

The following paragraph (c) is added to the clause:

PATENT INDEMNITY (APR 1984) -- ALTERNATE I (APR 1984)

(c) This patent indemnification shall not apply to the following items:
[Contracting Officer list and/or identify the items to be excluded from this indemnity]

4. **52.227-3 Patent Indemnity. (APR 1984) -- Alternate II (APR 1984)**

The following paragraph (c) is added to the clause:

PATENT INDEMNITY (APR 1984) -- ALTERNATE II (APR 1984)

(c) This patent indemnification shall cover the following items: [List and/or identify the items to be included under this indemnity]

4. **52.227-3 Patent Indemnity. (APR 1984) -- Alternate III (JUL 1995)**

The following paragraph is added to the clause:

PATENT INDEMNITY (APR 1984) -- *ALTERNATE III* (JUL 1995)

(c) As to subcontracts at any tier for communication service, this clause shall apply only to individual communication service authorizations over simplified acquisition threshold issued under this contract and covering those communications services and facilities:

- (1) that are or have been sold or offered for sale by the Contractor to the public;
- (2) that can be provided over commercially available equipment; or
- (3) that involve relatively minor modifications.

DATA CLAUSES

5. **52.227-14 Rights in Data - General. (JUN 1987) WITH REVISED PARAGRAPH C** [per 10 CFR 600.27(b)(2)(A and B), the following applies only to assistance awards to institutions of higher education, hospitals and other nonprofit organizations]

As prescribed in 27.409(a), insert the following clause with any appropriate alternates:

RIGHTS IN DATA - GENERAL (JUN 1987)

(a) *Definitions.* "Computer software," as used in this clause, means computer programs, computer data bases, and documentation thereof.

"Data," as used in this clause, means recorded information, regardless of form or the media on which it may be recorded. The term includes technical data and computer software. The term does not include information incidental to contract administration, such as financial, administrative, cost or pricing, or management information.

"Form, fit, and function data," as used in this clause, means data relating to items, components, or processes that are sufficient to enable physical and functional interchangeability, as well as data identifying source, size, configuration, mating, and attachment characteristics, functional characteristics, and performance requirements; except that for computer software it means data identifying source, functional characteristics, and performance requirements but specifically excludes the source code, algorithm, process, formulae, and flow charts of the software.

“Limited rights,” as used in this clause, means the rights of the Government in limited rights data as set forth in the Limited Rights Notice of subparagraph (g)(2) if included in this clause.

“Limited rights data,” as used in this clause, means data (other than computer software) that embody trade secrets or are commercial or financial and confidential or privileged, to the extent that such data pertain to items, components, or processes developed at private expense, including minor modifications thereof.

“Restricted computer software,” as used in this clause, means computer software developed at private expense and that is a trade secret; is commercial or financial and is confidential or privileged; or is published copyrighted computer software; including minor modifications of such computer software.

“Restricted rights,” as used in this clause, means the rights of the Government in restricted computer software, as set forth in a Restricted Rights Notice of subparagraph (g)(3) if included in this clause, or as otherwise may be provided in a collateral agreement incorporated in and made part of this contract, including minor modifications of such computer software.

“Technical data,” as used in this clause, means data (other than computer software) which are of a scientific or technical nature.

“Unlimited rights,” as used in this clause, means the right of the Government to use, disclose, reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, in any manner and for any purpose, and to have or permit others to do so.

(b) *Allocations of rights.* (1) Except as provided in paragraph (c) of this clause regarding copyright, the Government shall have unlimited rights in -

- (i) Data first produced in the performance of this contract;
- (ii) Form, fit, and function data delivered under this contract;
- (iii) Data delivered under this contract (except for restricted computer software) that constitute manuals or instructional and training material for installation, operation, or routine maintenance and repair of items, components, or processes delivered or furnished for use under this contract; and

(iv) All other data delivered under this contract unless provided otherwise for limited rights data or restricted computer software in accordance with paragraph (g) of this clause.

(2) The Contractor shall have the right to -

(i) Use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Contractor in the performance of this contract, unless provided otherwise in paragraph (d) of this clause;

(ii) Protect from unauthorized disclosure and use those data which are limited rights data or restricted computer software to the extent provided in paragraph (g) of this clause;

(iii) Substantiate use of, add or correct limited rights, restricted rights, or copyright notices and to take other appropriate action, in accordance with paragraphs (e) and (f) of this clause; and

(iv) Establish claim to copyright subsisting in data first produced in the performance of this contract to the extent provided in subparagraph (c)(1) of this clause.

(c) **[Substituted per 10 CFR 600.27]** *Copyright.*

(1) Data first produced in the performance of the award. Unless as otherwise specifically provided in this award, the recipient may establish claims to copyright subsisting in any data first produced in the performance of this award. When claim to copyright is made, the recipient shall affix the applicable copyright notice of 17 U.S.C. 401 or 402 and acknowledgement of Government sponsorship (including award number) to the data when such data are delivered to the Government, as well as when the data are published or deposited for registration as a published work in the U.S. Copyright Office. The recipient grants to the Government a royalty-free, nonexclusive and irrevocable right to reproduce, publish, or otherwise use the work for Federal purposes, and to authorize others to do so. The right to publish includes the right to publicly distribute, The right to use the work for Federal purposes includes the right to prepare derivative works.

(2) *Data not first produced in the performance of this contract.* The Contractor shall not, without prior written permission of the Contracting Officer, incorporate in data delivered under this contract any data not first produced in the performance of this contract and which contains the copyright notice of 17

U.S.C. 401 or 402, unless the Contractor identifies such data and grants to the Government, or acquires on its behalf, a license of the same scope as set forth in subparagraph (c)(1) of this clause; *provided*, however, that if such data are computer software the Government shall acquire a copyright license as set forth in subparagraph (g)(3) of this clause if included in this contract or as otherwise may be provided in a collateral agreement incorporated in or made part of this contract.

3) *Removal of copyright notices.* The Government agrees not to remove any copyright notices placed on data pursuant to this paragraph (c), and to include such notices on all reproductions of the data.

(d) *Release, publication and use of data.* (1) The Contractor shall have the right to use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Contractor in the performance of this contract, except to the extent such data may be subject to the Federal export control or national security laws or regulations, or unless otherwise provided in this paragraph of this clause or expressly set forth in this contract.

(2) The Contractor agrees that to the extent it receives or is given access to data necessary for the performance of this contract which contain restrictive markings, the Contractor shall treat the data in accordance with such markings unless otherwise specifically authorized in writing by the Contracting Officer.

(e) *Unauthorized marking of data.* (1) Notwithstanding any other provisions of this contract concerning inspection or acceptance, if any data delivered under this contract are marked with the notices specified in subparagraph (g)(2) or (g)(3) of this clause and use of such is not authorized by this clause, or if such data bears any other restrictive or limiting markings not authorized by this contract, the Contracting Officer may at any time either return the data to the Contractor, or cancel or ignore the markings. However, the following procedures shall apply prior to canceling or ignoring the markings.

(i) The Contracting Officer shall make written inquiry to the Contractor affording the Contractor 30 days from receipt of the inquiry to provide written justification to substantiate the propriety of the markings;

(ii) If the Contractor fails to respond or fails to provide written justification to substantiate the propriety of the markings within the 30-day period (or a longer time not exceeding 90 days approved in writing by the Contracting Officer for good cause

shown), the Government shall have the right to cancel or ignore the markings at any time after said period and the data will no longer be made subject to any disclosure prohibitions.

(iii) If the Contractor provides written justification to substantiate the propriety of the markings within the period set in subdivision (e)(1)(i) of this clause, the Contracting Officer shall consider such written justification and determine whether or not the markings are to be cancelled or ignored. If the Contracting Officer determines that the markings are authorized, the Contractor shall be so notified in writing. If the Contracting Officer determines, with concurrence of the head of the contracting activity, that the markings are not authorized, the Contracting Officer shall furnish the Contractor a written determination, which determination shall become the final agency decision regarding the appropriateness of the markings unless the Contractor files suit in a court of competent jurisdiction within 90 days of receipt of the Contracting Officer's decision. The Government shall continue to abide by the markings under this subdivision (e)(1)(iii) until final resolution of the matter either by the Contracting Officer's determination becoming final (in which instance the Government shall thereafter have the right to cancel or ignore the markings at any time and the data will no longer be made subject to any disclosure prohibitions), or by final disposition of the matter by court decision if suit is filed.

(2) The time limits in the procedures set forth in subparagraph (e)(1) of this clause may be modified in accordance with agency regulations implementing the Freedom of Information Act (5 U.S.C. 552) if necessary to respond to a request thereunder.

(3) This paragraph (e) does not apply if this contract is for a major system or for support of a major system by a civilian agency other than NASA and the U.S. Coast Guard agency subject to the provisions of Title III of the Federal Property and Administrative Services Act of 1949.

(4) Except to the extent the Government's action occurs as the result of final disposition of the matter by a court of competent jurisdiction, the Contractor is not precluded by this paragraph (e) from bringing a claim under the Contract Disputes Act, including pursuant to the Disputes clause of this contract, as applicable, that may arise as the result of the

Government removing or ignoring authorized markings on data delivered under this contract.

(f) *Omitted or incorrect markings.*

(1) Data delivered to the Government without either the limited rights or restricted rights notice as authorized by paragraph (g) of this clause, or the copyright notice required by paragraph (c) of this clause, shall be deemed to have been furnished with unlimited rights, and the Government assumes no liability for the disclosure, use, or reproduction of such data. However, to the extent the data has not been disclosed without restriction outside the Government, the Contractor may request, within 6 months (or a longer time approved by the Contracting Officer for good cause shown) after delivery of such data, permission to have notices placed on qualifying data at the Contractor's expense, and the Contracting Officer may agree to do so if the Contractor -

(i) Identifies the data to which the omitted notice is to be applied;

(ii) Demonstrates that the omission of the notice was inadvertent;

(iii) Establishes that the use of the proposed notice is authorized; and

(iv) Acknowledges that the Government has no liability with respect to the disclosure, use, or reproduction of any such data made prior to the addition of the notice or resulting from the omission of the notice.

(2) The Contracting Officer may also (i) permit correction at the Contractor's expense of incorrect notices if the Contractor identifies the data on which correction of the notice is to be made, and demonstrates that the correct notice is authorized, or (ii) correct any incorrect notices.

(g) *Protection of limited rights data and restricted computer software.*

(1) When data other than that listed in subdivisions (b)(1) (i), (ii), and (iii) of this clause are specified to be delivered under this contract and qualify as either limited rights data or restricted computer software, if the Contractor desires to continue protection of such data, the Contractor shall withhold such data and not furnish them to the Government under this contract. As a condition to this withholding, the Contractor shall identify the data being withheld and furnish form, fit, and function data

in lieu thereof. Limited rights data that are formatted as a computer data base for delivery to the Government are to be treated as limited rights data and not restricted computer software.

(2) Reserved.

(3) Reserved.

(h) *Subcontracting*. The Contractor has the responsibility to obtain from its subcontractors all data and rights therein necessary to fulfill the Contractor's obligations to the Government under this contract. If a subcontractor refuses to accept terms affording the Government such rights, the Contractor shall promptly bring such refusal to the attention of the Contracting Officer and not proceed with subcontract award without further authorization.

(i) *Relationship to patents*. Nothing contained in this clause shall imply a license to the Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Government.

5. **52.227-14 Rights in Data - General. (JUN 1987) WITH PARAGRAPH d(3)** [per 10 CFR 600.27(b)(2)(A and C), the following applies to assistance awards to commercial organizations, foreign governments, organizations under the jurisdiction of foreign governments, and international organizations.]

As prescribed in 27.409(a), insert the following clause with any appropriate alternates:

RIGHTS IN DATA - GENERAL (JUN 1987)

(a) *Definitions*. "Computer software," as used in this clause, means computer programs, computer data bases, and documentation thereof.

"Data," as used in this clause, means recorded information, regardless of form or the media on which it may be recorded. The term includes technical data and computer software. The term does not include information incidental to contract administration, such as financial, administrative, cost or pricing, or management information.

"Form, fit, and function data," as used in this clause, means data relating to items, components, or processes that are sufficient to enable physical and functional interchangeability, as well as data identifying source, size,

configuration, mating, and attachment characteristics, functional characteristics, and performance requirements; except that for computer software it means data identifying source, functional characteristics, and performance requirements but specifically excludes the source code, algorithm, process, formulae, and flow charts of the software.

“Limited rights,” as used in this clause, means the rights of the Government in limited rights data as set forth in the Limited Rights Notice of subparagraph (g)(2) if included in this clause.

“Limited rights data,” as used in this clause, means data (other than computer software) that embody trade secrets or are commercial or financial and confidential or privileged, to the extent that such data pertain to items, components, or processes developed at private expense, including minor modifications thereof.

“Restricted computer software,” as used in this clause, means computer software developed at private expense and that is a trade secret; is commercial or financial and is confidential or privileged; or is published copyrighted computer software; including minor modifications of such computer software.

“Restricted rights,” as used in this clause, means the rights of the Government in restricted computer software, as set forth in a Restricted Rights Notice of subparagraph (g)(3) if included in this clause, or as otherwise may be provided in a collateral agreement incorporated in and made part of this contract, including minor modifications of such computer software.

“Technical data,” as used in this clause, means data (other than computer software) which are of a scientific or technical nature.

“Unlimited rights,” as used in this clause, means the right of the Government to use, disclose, reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, in any manner and for any purpose, and to have or permit others to do so.

(b) *Allocations of rights.* (1) Except as provided in paragraph (c) of this clause regarding copyright, the Government shall have unlimited rights in -

(i) Data first produced in the performance of this contract;

(ii) Form, fit, and function data delivered under this contract;

(iii) Data delivered under this contract (except for restricted computer software) that constitute manuals or instructional and training material for installation, operation, or routine maintenance and repair of items, components, or processes delivered or furnished for use under this contract; and

(iv) All other data delivered under this contract unless provided otherwise for limited rights data or restricted computer software in accordance with paragraph (g) of this clause.

(2) The Contractor shall have the right to -

(i) Use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Contractor in the performance of this contract, unless provided otherwise in paragraph (d) of this clause;

(ii) Protect from unauthorized disclosure and use those data which are limited rights data or restricted computer software to the extent provided in paragraph (g) of this clause;

(iii) Substantiate use of, add or correct limited rights, restricted rights, or copyright notices and to take other appropriate action, in accordance with paragraphs (e) and (f) of this clause; and

(iv) Establish claim to copyright subsisting in data first produced in the performance of this contract to the extent provided in subparagraph (c)(1) of this clause.

(c) Copyright. (1) Data first produced in the performance of this contract.

Unless provided otherwise in paragraph (d) of this clause, the Contractor may establish, without prior approval of the Contracting Officer, claim to copyright subsisting in scientific and technical articles based on or containing data first produced in the performance of this contract and published in academic, technical or professional journals, symposia proceedings or similar works. The prior, express written permission of the Contracting Officer is required to establish claim to copyright subsisting in all other data first produced in the performance of this contract. When claim to copyright is made, the Contractor shall affix the applicable copyright notices of 17 U.S.C. 401 or 402 and acknowledgment of Government sponsorship (including contract number) to the data when such data are delivered to the Government, as well as when the data are published or deposited for registration as a published work in the U.S. Copyright Office. For data other than computer software the Contractor grants

to the Government, and others acting on its behalf, a paid-up, nonexclusive, irrevocable worldwide license in such copyrighted data to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government. For computer software, the Contractor grants to the Government and others acting in its behalf, a paid-up nonexclusive, irrevocable worldwide license in such copyrighted computer software to reproduce, prepare derivative works, and perform publicly and display publicly by or on behalf of the Government.

(2) *Data not first produced in the performance of this contract.* The Contractor shall not, without prior written permission of the Contracting Officer, incorporate in data delivered under this contract any data not first produced in the performance of this contract and which contains the copyright notice of 17 U.S.C. 401 or 402, unless the Contractor identifies such data and grants to the Government, or acquires on its behalf, a license of the same scope as set forth in subparagraph (c)(1) of this clause; *provided*, however, that if such data are computer software the Government shall acquire a copyright license as set forth in subparagraph (g)(3) of this clause if included in this contract or as otherwise may be provided in a collateral agreement incorporated in or made part of this contract.

(3) *Removal of copyright notices.* The Government agrees not to remove any copyright notices placed on data pursuant to this paragraph (c), and to include such notices on all reproductions of the data.

(d) *Release, publication and use of data.* (1) The Contractor shall have the right to use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Contractor in the performance of this contract, except to the extent such data may be subject to the Federal export control or national security laws or regulations, or unless otherwise provided in this paragraph of this clause or expressly set forth in this contract.

(2) The Contractor agrees that to the extent it receives or is given access to data necessary for the performance of this contract which contain restrictive markings, the Contractor shall treat the data in accordance with such markings unless otherwise specifically authorized in writing by the Contracting Officer.

(3) **[Added per 10 CFR 600.27]** The Recipient agrees not to establish claim to copyright in computer software first produced in the performance of this award without prior written permission of the Contracting Officer. When such permission is granted, the Contracting

Officer shall specify appropriate terms to assure dissemination of the software. The Recipient shall promptly deliver to the Contracting Officer or to the DOE Patent Counsel designated by the Contracting Officer a duly executed and approved instrument fully confirmatory of all rights to which the Government is entitled, and other terms pertaining to the computer software to which claims to copyright is made.

(e) *Unauthorized marking of data.* (1) Notwithstanding any other provisions of this contract concerning inspection or acceptance, if any data delivered under this contract are marked with the notices specified in subparagraph (g)(2) or (g)(3) of this clause and use of such is not authorized by this clause, or if such data bears any other restrictive or limiting markings not authorized by this contract, the Contracting Officer may at any time either return the data to the Contractor, or cancel or ignore the markings. However, the following procedures shall apply prior to canceling or ignoring the markings.

(i) The Contracting Officer shall make written inquiry to the Contractor affording the Contractor 30 days from receipt of the inquiry to provide written justification to substantiate the propriety of the markings;

(ii) If the Contractor fails to respond or fails to provide written justification to substantiate the propriety of the markings within the 30-day period (or a longer time not exceeding 90 days approved in writing by the Contracting Officer for good cause shown), the Government shall have the right to cancel or ignore the markings at any time after said period and the data will no longer be made subject to any disclosure prohibitions.

(iii) If the Contractor provides written justification to substantiate the propriety of the markings within the period set in subdivision (e)(1)(i) of this clause, the Contracting Officer shall consider such written justification and determine whether or not the markings are to be cancelled or ignored. If the Contracting Officer determines that the markings are authorized, the Contractor shall be so notified in writing. If the Contracting Officer determines, with concurrence of the head of the contracting activity, that the markings are not authorized, the Contracting Officer shall furnish the Contractor a written determination, which determination shall become the final agency decision regarding the appropriateness of the markings unless the Contractor files suit in a court of competent jurisdiction within 90 days of receipt of the Contracting Officer's decision. The

Government shall continue to abide by the markings under this subdivision (e)(1)(iii) until final resolution of the matter either by the Contracting Officer's determination becoming final (in which instance the Government shall thereafter have the right to cancel or ignore the markings at any time and the data will no longer be made subject to any disclosure prohibitions), or by final disposition of the matter by court decision if suit is filed.

(2) The time limits in the procedures set forth in subparagraph (e)(1) of this clause may be modified in accordance with agency regulations implementing the Freedom of Information Act (5 U.S.C. 552) if necessary to respond to a request thereunder.

(3) This paragraph (e) does not apply if this contract is for a major system or for support of a major system by a civilian agency other than NASA and the U.S. Coast Guard agency subject to the provisions of Title III of the Federal Property and Administrative Services Act of 1949.

(4) Except to the extent the Government's action occurs as the result of final disposition of the matter by a court of competent jurisdiction, the Contractor is not precluded by this paragraph (e) from bringing a claim under the Contract Disputes Act, including pursuant to the Disputes clause of this contract, as applicable, that may arise as the result of the Government removing or ignoring authorized markings on data delivered under this contract.

(f) *Omitted or incorrect markings.*

(1) Data delivered to the Government without either the limited rights or restricted rights notice as authorized by paragraph (g) of this clause, or the copyright notice required by paragraph (c) of this clause, shall be deemed to have been furnished with unlimited rights, and the Government assumes no liability for the disclosure, use, or reproduction of such data. However, to the extent the data has not been disclosed without restriction outside the Government, the Contractor may request, within 6 months (or a longer time approved by the Contracting Officer for good cause shown) after delivery of such data, permission to have notices placed on qualifying data at the Contractor's expense, and the Contracting Officer may agree to do so if the Contractor -

(i) Identifies the data to which the omitted notice is to be applied;

(ii) Demonstrates that the omission of the notice was inadvertent;

(iii) Establishes that the use of the proposed notice is authorized;
and

(iv) Acknowledges that the Government has no liability with respect to the disclosure, use, or reproduction of any such data made prior to the addition of the notice or resulting from the omission of the notice.

(2) The Contracting Officer may also (i) permit correction at the Contractor's expense of incorrect notices if the Contractor identifies the data on which correction of the notice is to be made, and demonstrates that the correct notice is authorized, or (ii) correct any incorrect notices.

(g) *Protection of limited rights data and restricted computer software.*

(1) When data other than that listed in subdivisions (b)(1) (i), (ii), and (iii) of this clause are specified to be delivered under this contract and qualify as either limited rights data or restricted computer software, if the Contractor desires to continue protection of such data, the Contractor shall withhold such data and not furnish them to the Government under this contract. As a condition to this withholding, the Contractor shall identify the data being withheld and furnish form, fit, and function data in lieu thereof. Limited rights data that are formatted as a computer data base for delivery to the Government are to be treated as limited rights data and not restricted computer software.

(2) Reserved.

(3) Reserved.

(h) *Subcontracting.* The Contractor has the responsibility to obtain from its subcontractors all data and rights therein necessary to fulfill the Contractor's obligations to the Government under this contract. If a subcontractor refuses to accept terms affording the Government such rights, the Contractor shall promptly bring such refusal to the attention of the Contracting Officer and not proceed with subcontract award without further authorization.

(i) *Relationship to patents.* Nothing contained in this clause shall imply a license to the Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Government.

ADDITIONS/ALTERNATES

5. Paragraph (k) - "Contractor Licensing"

Except as may be otherwise specified in this contract as data not subject to this paragraph, the contractor agrees that upon written application by DOE, it will grant to the Government and responsible third parties, for purposes of practicing a subject of this contract, a nonexclusive license in any limited rights data or restricted computer software on terms and conditions reasonable under the circumstances including appropriate provisions for confidentiality; provided, however, the contractor shall not be obligated to license any such data if the contractor demonstrates to the satisfaction of the Secretary of Energy or designee that:

- (1) Such data are not essential to the manufacture or practice of hardware designed or fabricated, or processes developed, under this contract;
- (2) Such data, in the form of results obtained by their use, have a commercially competitive alternative available or readily introducible from one or more other sources;
- (3) Such data, in the form of results obtained by their use, are being supplied by the contractor or its licensees in sufficient quantity and at reasonable prices to satisfy market needs, or the contractor or its licensees have taken effective steps to so supply such data in the form of results obtained by its use; or
- (4) Such data, in the form of results obtained by their use, can be furnished by another firm skilled in the art of manufacturing items or performing processes of the same general type and character necessary to achieve the contract results.

5. 52.227-14 Rights in Data - General. (JUN 1987) -- Alternate I (JUN 1987)

As prescribed in 27.409(b), substitute the following definition for Limited Rights Data in paragraph (a) of the clause:

RIGHTS IN DATA - GENERAL (JUN 1987) -- ALTERNATE I (JUN 1987)

“Limited rights data,” as used in this clause, means data (other than computer software) developed at private expense that embody trade secrets or are commercial or financial and confidential or privileged.

5. 52.227-14 Rights in Data - General. (JUN 1987) -- Alternate II (JUN 1987)

As prescribed in 27.409(c), insert the following subparagraph (g)(2) in the clause:

RIGHTS IN DATA - GENERAL (JUN 1987) -- ALTERNATE II (JUN 1987)

(g) *Protection of limited rights data and restricted computer software.*

(2) Notwithstanding subparagraph (g)(1) of this clause, the contract may identify and specify the delivery of limited rights data, or the Contracting Officer may require by written request the delivery of limited rights data that has been withheld or would otherwise be withholdable. If delivery of such data is so required, the Contractor may affix the following “Limited Rights Notice” to the data and the Government will thereafter treat the data, subject to the provisions of paragraphs (e) and (f) of this clause, in accordance with such Notice:

LIMITED RIGHTS NOTICE (JUN 1987)

(a) These data are submitted with limited rights under Government Contract No. _____ (and subcontract _____, if appropriate). These data may be reproduced and used by the Government with the express limitation that they will not, without written permission of the Contractor, be used for purposes of manufacture nor disclosed outside the Government; except that the Government may disclose these data outside the Government for the following purposes, if any, provided that the Government makes such disclosure subject to prohibition against further use and disclosure: [Agencies may list additional purposes as set forth in 27.404(d)(1) or if none, so state]

(b) This Notice shall be marked on any reproduction of these data, in whole or in part.

5. **52.227-14 Rights in Data - General. (JUN 1987) -- Alternate III (JUN 1987)**

As prescribed in 27.409(d), insert the following subparagraph (g)(3) in the clause:

RIGHTS IN DATA - GENERAL (JUN 1987) -- ALTERNATE III (JUN 1987)

(g) *Protection of limited rights data and restricted computer software.*

(3)(i) Notwithstanding subparagraph (g)(1) of this clause, the contract may identify and specify the delivery of restricted computer software, or the Contracting Officer may require by written request the delivery of restricted computer software that has been withheld or would otherwise be withholdable. If delivery of such computer software is so required, the Contractor may affix the following Restricted Rights Notice to the computer software and the Government will thereafter treat the computer software, subject to paragraphs (e) and (f) of this clause, in accordance with the Notice:

RESTRICTED RIGHTS NOTICE (JUN 1987)

(a) This computer software is submitted with restricted rights under Government Contract No. _____ (and subcontract _____, if appropriate). It may not be used, reproduced, or disclosed by the Government except as provided in paragraph (b) of this Notice or as otherwise expressly stated in the contract.

(b) This computer software may be -

(1) Used or copied for use in or with the computer or computers for which it was acquired, including use at any Government installation to which such computer or computers may be transferred;

(2) Used or copied for use in a backup computer if any computer for which it was acquired is inoperative;

(3) Reproduced for safekeeping (archives) or backup purposes;

(4) Modified, adapted, or combined with other computer software, *provided* that the modified, combined, or adapted portions of the derivative software incorporating restricted computer software are made subject to the same restricted rights;

(5) Disclosed to and reproduced for use by support service Contractors in accordance with subparagraphs (b) (1) through (4) of this clause, provided the Government makes such disclosure or reproduction subject to these restricted rights; and

(6) Used or copied for use in or transferred to a replacement computer.

(c) Notwithstanding the foregoing, if this computer software is published copyrighted computer software, it is licensed to the Government, without disclosure prohibitions, with the minimum rights set forth in paragraph (b) of this clause.

(d) Any other rights or limitations regarding the use, duplication, or disclosure of this computer software are to be expressly stated in, or incorporated in, the contract.

(e) This Notice shall be marked on any reproduction of this computer software, in whole or in part.

(End of notice)

(ii) Where it is impractical to include the Restricted Rights Notice on restricted computer software, the following short-form Notice may be used in lieu thereof:

RESTRICTED RIGHTS NOTICE (SHORT FORM) (JUN 1987)

Use, reproduction, or disclosure is subject to restrictions set forth in Contract No. _____ (and subcontract _____, if appropriate) with _____ (name of Contractor and subcontractor).

(End of notice)

(iii) If restricted computer software is delivered with the copyright notice of 17 U.S.C. 401, it will be presumed to be published copyrighted computer software licensed to the Government without disclosure prohibitions, with the minimum rights set forth in paragraph (b) of this clause, unless the Contractor includes the following statement with such copyright notice: "Unpublished - rights reserved under the Copyright Laws of the United States."

5. 52.227-14 Rights in Data - General. (JUN 1987) -- Alternate IV (JUN 1987)

As prescribed in 27.409(e), substitute the following subparagraph (c)(1) in the clause:

RIGHTS IN DATA - GENERAL (JUN 1987) -- ALTERNATE IV (JUN 1987)

(c) *Copyright.* (1) Data First Produced in the Performance of the Contract. Except as otherwise specifically provided in this contract, the Contractor may establish claim to copyright subsisting in any data first produced in the performance of this contract. When claim to copyright is made, the Contractor shall affix the applicable copyright notice of 17 U.S.C. 401 or 402 and acknowledgment of Government sponsorship (including contract number) to the data when such data are delivered to the Government, as well as when the data are published or deposited for registration as a published work in the U.S. Copyright Office. For data other than computer software, the Contractor grants to the Government, and others acting on its behalf, a paid-up, nonexclusive, irrevocable, worldwide license for all such data to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government. For computer software, the Contractor grants to the Government and others acting on its behalf, a paid up, nonexclusive, irrevocable worldwide license for all such computer software to reproduce, prepare derivative works, and perform publicly and display publicly, by or on behalf of the Government.

5. 52.227-14 Rights in Data - General. (JUN 1987) --Alternate V (JUN 1987)

As prescribed in 27.409(f), add the following paragraph (j) to the clause:

RIGHTS IN DATA - GENERAL (JUN 1987) -- ALTERNATE V (JUN 1987)

(j) The Contractor agrees, except as may be otherwise specified in this contract for specific data items listed as not subject to this paragraph, that the Contracting Officer or an authorized representative may, up to three years after acceptance of all items to be delivered under this contract, inspect at the Contractors facility any data withheld pursuant to paragraph (g)(1) of this clause, for purposes of verifying the Contractors assertion pertaining to the limited rights or restricted rights status of the data or for evaluating work performance. Where the Contractor whose data are to be inspected demonstrates

to the Contracting Officer that there would be a possible conflict of interest if the inspection were made by a particular representative, the Contracting Officer shall designate an alternate inspector.

6. **52.227-1 Authorization and Consent. (JUL 1995)**

As prescribed at 27.201-2(a), insert the following clause:

AUTHORIZATION AND CONSENT (JUL 1995)

(a) The Government authorizes and consents to all use and manufacture, in performing this contract or any subcontract at any tier, of any invention described in and covered by a United States patent:

(1) embodied in the structure or composition of any article the delivery of which is accepted by the Government under this contract; or

(2) used in machinery, tools, or methods whose use necessarily results from compliance by the Contractor or a subcontractor with:

(i) specifications or written provisions forming a part of this contract; or

(ii) specific written instructions given by the Contracting Officer directing the manner of performance. The entire liability to the Government for infringement of a patent of the United States shall be determined solely by the provisions of the indemnity clause, if any, included in this contract or any subcontract hereunder (including any lower-tier subcontract), and the Government assumes liability for all other infringement to the extent of the authorization and consent hereinabove granted.

(b) The Contractor agrees to include, and require inclusion of, this clause, suitably modified to identify the parties, in all subcontracts at any tier for supplies or services (including construction, architect-engineer services, and materials, supplies, models, samples, and design or testing services expected to exceed the simplified acquisition threshold (however, omission of this clause from any subcontract, including those at or below the simplified acquisition threshold, does not affect this authorization and consent.)

ALTERNATE

6. **52.227-1 Authorization and Consent. (JUL 1995) -- Alternate I (APR 1984)**

The following is substituted for paragraph (a) of the clause:

AUTHORIZATION AND CONSENT (JUL 1995) -- *ALTERNATE I* (APR 1984)

(a) The Government authorizes and consents to all use and manufacture of any invention described in and covered by a United States patent in the performance of this contract or any subcontract at any tier.

6. **52.227-1 Authorization and Consent. (JUL 1995) -- Alternate II (APR 1984)**

The following is substituted for paragraph (a) of the clause:

AUTHORIZATION AND CONSENT (JUL 1995) -- *ALTERNATE II* (APR 1984)

(a) The Government authorizes and consents to all use and manufacture in the performance of any order at any tier or subcontract at any tier placed under this contract for communication services and facilities for which rates, charges, and tariffs are *not* established by a government regulatory body, of any invention described in and covered by a United States patent:

(1) embodied in the structure or composition of any article the delivery of which is accepted by the Government under this contract; or

(2) used in machinery, tools, or methods whose use necessarily results from compliance by the contractor or a subcontractor with specifications or written provisions forming a part of this contract or with specific written instructions given by the Contracting Officer directing the manner of performance.

7. **52.227-2 Notice and Assistance Regarding Patent and Copyright Infringement. (APR 1984)**

As prescribed at 27.202-2, insert the following clause:

NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (APR 1984)

(a) The Contractor shall report to the Contracting Officer, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this contract of which the Contractor has knowledge.

(b) In the event of any claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this contract or out of the use of any supplies furnished or work or services performed under this contract, the Contractor shall furnish to the Government, when requested by the Contracting Officer, all evidence and information in possession of the Contractor pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Government except where the Contractor has agreed to indemnify the Government.

(c) The Contractor agrees to include, and require inclusion of, this clause in all subcontracts at any tier for supplies or services (including construction and architect-engineer subcontracts and those for material, supplies, models, samples, or design or testing services) expected to exceed the dollar amount set forth in 13.000 of the Federal Acquisition Regulation (FAR).

8. 52.227-6 Royalty Information. (APR 1984)

As prescribed at 27.204-2, insert the following provision:

ROYALTY INFORMATION (APR 1984)

(a) *Cost or charges for royalties.* When the response to this solicitation contains costs or charges for royalties totaling more than \$250, the following information shall be included in the response relating to each separate item of royalty or license fee:

(1) Name and address of licensor.

(2) Date of license agreement.

(3) Patent numbers, patent application serial numbers, or other basis on which the royalty is payable.

(4) Brief description, including any part or model numbers of each contract item or component on which the royalty is payable.

(5) Percentage or dollar rate of royalty per unit.

(6) Unit price of contract item.

(7) Number of units.

(8) Total dollar amount of royalties.

(b) *Copies of current licenses.* In addition, if specifically requested by the Contracting Officer before execution of the contract, the offeror shall furnish a copy of the current license agreement and an identification of applicable claims of specific patents.

ALTERNATE

8. **52.227-6 Royalty Information. (APR 1984) -- Alternate I (APR 1984)**

Substitute the following for the introductory portion of paragraph (a) of the basic clause:

ROYALTY INFORMATION (APR 1984) -- ALTERNATE I (APR 1984)

(a) When the response to this solicitation covers charges for special construction or special assembly that contain costs or charges for royalties totaling more than \$250, the following information shall be included in the response relating to each separate item of royalty or license fee:

(1) Name and address of licensor.

(2) Date of license agreement.

(3) Patent numbers, patent application serial numbers, or other basis on which the royalty is payable.

(4) Brief description, including any part or model numbers of each contract item or component on which the royalty is payable.

(5) Percentage or dollar rate of royalty per unit.

(6) Unit price of contract item.

(7) Number of units.

(8) Total dollar amount of royalties.

9. **52.227-9 Refund of Royalties. (APR 1984)**

As prescribed at 27.206-2, insert the following clause. In solicitations and contracts with an incentive fee arrangement, change “price” to “target cost and target profit” wherever it appears.

REFUND OF ROYALTIES (APR 1984)

(a) The contract price includes certain amounts for royalties payable by the Contractor or subcontractors or both, which amounts have been reported to the Contracting Officer.

(b) The term “royalties” as used in this clause refers to any costs or charges in the nature of royalties, license fees, patent or license amortization costs, or the like, for the use of or for rights in patents and patent applications in connection with performing this contract or any subcontract hereunder.

(c) The Contractor shall furnish to the Contracting Officer, before final payment under this contract, a statement of royalties paid or required to be paid in connection with performing this contract and subcontracts hereunder together with the reasons.

(d) The Contractor will be compensated for royalties reported under paragraph (c) above, only to the extent that such royalties were included in the contract price and are determined by the Contracting Officer to be properly chargeable to the Government and allocable to the contract. To the extent that any royalties that are included in the contract price are not in fact paid by the Contractor or are determined by the Contracting Officer not to be properly chargeable to the Government and allocable to the contract, the contract price shall be reduced. Repayment or credit to the Government shall be made as the Contracting Officer directs.

(e) If, at any time within 3 years after final payment under this contract, the Contractor for any reason is relieved in whole or in part from the payment of the royalties included in the final contract price as adjusted pursuant to paragraph (d) above, the Contractor shall promptly notify the Contracting Officer of that fact and shall reimburse the Government in a corresponding amount.

(f) The substance of this clause, including this paragraph (f), shall be included in any subcontract in which the amount of royalties reported during negotiation of the subcontract exceeds \$250.

10. **52.227-23 Rights to Proposal Data (Technical). (JUN 1987)**

As prescribed in 27.409(s), insert the following clause:

RIGHTS TO PROPOSAL DATA (TECHNICAL) (JUN 1987)

Except for data contained on pages [], it is agreed that as a condition of award of this contract, and notwithstanding the conditions of any notice appearing thereon, the Government shall have unlimited rights (as defined in the "Rights in Data - General" clause contained in this contract) in and to the technical data contained in the proposal dated [], upon which this contract is based.

11. **52.227-16 Additional Data Requirements. (JUN 1987)**

As prescribed in 27.409(h), insert the following clause:

ADDITIONAL DATA REQUIREMENTS (JUN 1987)

(a) In addition to the data (as defined in the clause at 52.227-14, Rights in Data - General clause or other equivalent included in this contract) specified elsewhere in this contract to be delivered, the Contracting Officer may, at any time during contract performance or within a period of 3 years after acceptance of all items to be delivered under this contract, order any data first produced or specifically used in the performance of this contract.

(b) The Rights in Data - General clause or other equivalent included in this contract is applicable to all data ordered under this Additional Data Requirements clause. Nothing contained in this clause shall require the Contractor to deliver any data the withholding of which is authorized by the Rights in Data - General or other equivalent clause of this contract, or data which are specifically identified in this contract as not subject to this clause.

(c) When data are to be delivered under this clause, the Contractor will be compensated for converting the data into the prescribed form, for reproduction, and for delivery.

(d) The Contracting Officer may release the Contractor from the requirements of this clause for specifically identified data items at any time during the 3-year period set forth in paragraph (a) of this clause.

ATTACHMENT C

FEDERAL ASSISTANCE REPORTING CHECKLIST

ATTACHMENT D

CONTRACT CLAUSES

CONTRACT CLAUSES

For purposes of this Attachment, the term "contract" means a procurement contract awarded under the Cooperative Agreement and a procurement subcontract awarded under such a contract; the term "solicitation" means an invitation for bids, request for quotations or proposals, or any other type of solicitation issued by the Participant for the purposes of awarding a contract. The following clauses shall be included, as indicated below, in contracts and in solicitations:

1. For contracts other than small purchases: administrative, contractual, or legal remedies for violations or breaches of contract terms.
2. For contracts over \$10,000: provisions for terminating the contract for default or for convenience, including the manner by which the termination will be effected and the basis for settlement.
3. For construction contracts over \$10,000: a requirement that the contractor comply with Executive Order 11246 of September 24, 1965 entitled "Equal Employment Opportunity," as amended by Executive Order 11375 of October 13, 1967 and as supplemented in U.S. Department of Labor regulations (41 CFR Part 60).
4. For all construction or repair contracts: a requirement that the contractor comply with the Copeland Anti-Kickback Act (18 U.S.C. 874) as supplemented in U.S. Department of Labor regulations (29 CFR Part 3).
5. For construction contracts over \$2,000 and for all contracts over \$2,500 involving the services of mechanics or laborers: a requirement that the contractor comply with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-330) as supplemented by U.S. Department of Labor regulations (29 CFR Part 5).
6. For all contracts other than small purchases: a clause requiring the contractor to furnish such information the Participant must receive in order to comply with the reporting requirements under this Cooperative Agreement.
7. For all contracts over \$10,000: a clause requiring the contractor to retain records pertinent to the contract for three (3) years after the contractor receives final payment. The clause must also provide that if an audit, litigation, or other action involving the contract records commences before the end of the three (3) year retention period, the records must be retained until all issues arising out of the action are resolved, or until the end of the three (3) year period, whichever is later.
8. For all contracts over \$10,000: a clause providing the Participant, DOE and the Comptroller General of the United States, or any of their duly authorized representatives shall have access to any books, documents, papers, and records (including those on electronic media) of the contractor which are directly pertinent to that specific contract for the purpose of making audit, examination, excerpts, and transcripts. This clause shall specify that the right of access shall last as long as the contractor retains records which are directly pertinent to that specific contract.
9. For contracts and subcontracts over \$100,000: a clause requiring the contractor or subcontractor

to comply with all applicable standards, orders, or requirements issued under Section 306 of the Clean Air Act (42 U.S.C. 1857 (h)), Section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR Part 15).

10. For all contracts and subcontracts: a clause requiring compliance with all applicable mandatory standards and policies relating to energy efficiency contained in the state energy conservation plan issued pursuant to the Energy Policy and Conservation Act (42 U.S.C. 6201, et seq.).
11. In solicitations: the following Instructions for and Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -- Lower Tier Covered Transactions:

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -- Lower Tier Covered Transactions Instructions for Certification

By signing and submitting this proposal, the prospective lower tier Participant is providing the certification set out below.

2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier Participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the U.S. Department of Energy may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier Participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier Participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "Nonprocurement List," "DOE List," "Participant," "person," "primary covered transaction," "principal," "proposal," and "voluntary excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the DOE rules implementing Executive Order 12549. See, 10 CFR Part 1036 [53 F.R. 19204 (May 26, 1988)]. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of these rules.
5. The prospective lower tier Participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the U.S. Department of Energy.
6. The prospective lower tier Participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -- Lower Tier Covered

Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

7. A Participant in a covered transaction may rely upon a certification of a prospective Participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A Participant may decide the method and frequency by which it determines the eligibility of its principals. Each Participant may, but is not required to, check the Nonprocurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a Participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under Paragraph 5 of these instructions, if a Participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the U.S. Department of Energy may pursue available remedies, including suspension and/or debarment.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -- Lower Tier Covered Transactions

- (1) The prospective lower tier Participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
 - (2) Where the prospective lower tier Participant is unable to certify to any of the statements in this, such prospective Participant shall attach an explanation to this proposal.
12. In solicitations, the following certification regarding lobbying:

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies that, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the

making of any Federal loan, the entering into of any Cooperative Agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or Cooperative Agreement.

- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the Federal contract, grant, loan or Cooperative Agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award document for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and Cooperative Agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact which reliance was placed upon when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$100,000 for each such failure.

NOTICE

FEDERAL ASSISTANCE REPORTING REQUIREMENTS

The Recipient shall prepare and submit (postage prepaid) the plans and reports indicated in this Attachment. The Recipient shall be responsible for levying appropriate reporting requirements on any contractor or subcontractor in such a manner as to ensure that data submitted by the contractor or subcontractor to the Recipient are compatible with the data elements that the Recipient is responsible for submitting to DOE.

U. S. DEPARTMENT OF ENERGY
FEDERAL ASSISTANCE REPORTING CHECKLIST

1. Identification Number: DE-FC26-97FT34181	2. Program/Project Title: "ADVANCED DIAGNOSTICS TESTS IN PRIORITY BASINS"		
3. Recipient:			
4. Reporting Requirements: PROGRAM/PROJECT MANAGEMENT REPORTING <input type="checkbox"/> DOE F 4600.3, "Federal Assistance Milestone Plan" <input type="checkbox"/> DOE F 4600.3A, "Milestone Log" <input type="checkbox"/> DOE F 4600.4, "Federal Assistance Budget Information" <input type="checkbox"/> DOE F 4600.5, "Federal Assistance Management Summary Report" <input type="checkbox"/> DOE F 4600.6, "Federal Assistance Program/Project Status Report" <input checked="" type="checkbox"/> SF-269 or SF-269A, "Financial Status Report" <input checked="" type="checkbox"/> SF-272, "Federal Cash Transaction Report" TECHNICAL INFORMATION REPORTING <input checked="" type="checkbox"/> Technical Progress Report* (No Draft req'd) <input checked="" type="checkbox"/> Topical Report* <input checked="" type="checkbox"/> Final Technical Report* (* TWO PAPER COPIES & ONE SOFTWARE FILE) ENVIRONMENTAL REPORTING <input checked="" type="checkbox"/> Hazardous Substance Plan <input checked="" type="checkbox"/> Hazardous Waste Report PROPERTY REPORTING <input type="checkbox"/> List of Federally-Owned Property <input checked="" type="checkbox"/> Final Property Inventory of All Property (Federally-Owned and Grantee Acquired)	Frequency	No. of Copies	Addressees
	Y,F Q	3 3	AAD DOCUMENT CONTROL
	Q A F	3* 3* 3*	" " "
	O F	3 3	" "
	F	3	"
FREQUENCY CODES AND DUE DATES: A - As necessary; Within 10 calendar days after events. F - Final; 90 calendar days after performance of the effort ends. Q - Quarterly; within 60 calendar days after end of the calendar quarter or portion thereof. O - One time after project starts; within 30 calendar days after award. X - Required with proposals or the application or with significant planning changes. Y - Yearly; 30 calendar days after the end of program year. (Financial Status Reports 90 calendar days). S - Semiannually; within 30 calendar days after end of program fiscal half year. M - Monthly; within 25 calendar days after end of the report period.			

5. SPECIAL INSTRUCTIONS: As per attached guidelines.	
6. PREPARED BY (Signature and Date)	7. REVIEWED BY (Signature and Date)

ATTACHMENT TO THE FEDERAL ASSISTANCE REPORTING CHECKLIST, DOE F 4600.2

Block 4. In addition to the reports prescribed on the preceding DOE F 4600.2, the following reports are also required.

	<u>Report Title</u>	<u>Form Number</u>	<u>Frequency</u>	<u>No. of Copies</u>
A.	<u>PROGRAM/PROJECT MANAGEMENT REPORTING</u>			
	Project Management Plan	None	See Note 1	3
B.	<u>TECHNICAL INFORMATION REPORTING</u>			
1.	Final Technical Report			
	Draft for Review	None	F	2
	Final for Approval	None	F	2
2.	Software	None	A	3
3.	Topical Reports	None	See Note 2	2
C.	<u>NEPA COMPLIANCE PLANS AND REPORTING</u>			
1.	Notification of Environmental, Safety & Health Violations	None	See Note 3	
2.	Notification of Spill or Unregulated Release	None	See Note 4	

NOTES:

1. Project Management Plan due 60 days from project start (Ref. Article VIII)
2. Topical Reports are due 30 days after completion of specific task.
3. Notification of Environmental, Safety & Health Violations is prescribed under Article XXVI.
4. Notification of Spill or Unregulated Release is prescribed under Article XXVII.

Block 5. SPECIAL INSTRUCTIONS, CONTINUED

- (a) Reports designated as "Quarterly (Q)" are to be submitted on the basis of calendar quarters or portions thereof, i.e.:

<u>Period</u>	<u>Due Date</u>
January through March	May 31
April through June	August 31
July through September	November 30
October through December	February 28

- (b) The requested quantity of all reports shall be submitted to the following address:

AAD Document Control
U. S. Department of Energy
Federal Energy Technology Center
626 Cochran Mill Rd.
P. O. Box 10940, MS 921-143
Pittsburgh, PA 15236-0940

- (c) MANAGEMENT/TECHNICAL REPORTS

1. Project Management Plan (Ref. Article VIII)

The Management Plan should conform to the specifications given in DOE Order 1332.2.

Its objective is to clarify management structure, task responsibilities and schedules. The plan is to be written by the Recipient in an appropriate format, and should include the following components:

- Managers -- their responsibilities and chain of command
- Project staff organization structure chart
- Management procedures especially regarding coordination between team member organizations, and including sharing of data and meeting schedules
- Quality assurance plan
- Plan for dealing with ES&H and reporting environmental compliance
- Task WBS and logic flow diagram
- List and schedule of planned deliverables -- reports and technical data
- Diagram of existing facilities
- Industry interaction such as industry advisory or funding consortia --membership, meetings and responsibilities

Appropriate revisions to the Management Plan shall be submitted when so directed by the DOE Project Manager or whenever the requirements are changed by modification. The Recipient shall submit recommended revisions to the work plan if such revisions are deemed desirable for optimum achievement of program objectives. Incorporation of recommended work plan changes must be approved by the DOE Project Manager before implementation.

- (d). Technical Reports

- (i) Content of Technical Reports: Quarterly or Semi-Annual Technical Progress Report, Topical Report and Final Technical Report. The content of these reports shall be as prescribed in 10 CFR 600.151 and below:

Quarterly or Semi-Annual Technical Progress Report - This single, comprehensive report should summarize all project work accomplished to date and planned for the next period, and include a list of all manuscripts published during the reporting period.

1. Title page: See (c)(ii) **Format for Submission of Electronic/Paper Versions of Technical Reports (JULY 1996)** below for format and content.
2. Text should, in a brief, concise format, include the technical and scientific results achieved.
3. Theses or technical journal articles resulting from this research shall be submitted under this cooperative agreement.

Topical Report - These reports shall comprehensively document the technical work performed on a specific task or phase of work. It can also be a detailed description of scientific or technological advances (Ref. Note 3 above). The report shall follow a format similar to that of the final report.

Final Technical Reports - This report shall be submitted in draft form to the COR within ninety (90) calendar days following completion of the Cooperative Agreement completion date, detailing the results of all project work accomplished, problems encountered, and conclusions reached. The report shall document and summarize contracted work for the entire period, including implications of results and recommendations for future work, if applicable, based upon the experiences and results gained. The report shall include tables, graphs, photos, and diagrams in sufficient detail to comprehensively explain the results achieved under the Cooperative Agreement.

The Government will be allowed thirty (30) calendar days from date of receipt to review the draft of the Final Report and to notify the Recipient of approval or recommended changes to be made in the

final copy. If the Government does not approve or recommend changes to the draft of the Final Report, the report will be deemed approved.

1. Title page: See (c)(ii) **Format for Submission of Electronic/Paper Versions of Technical Reports (JULY 1996)** below for format and content.
2. Table of Contents should include list of figures and list of tables.
3. Executive Summary - Brief detail of background, main conclusions and recommendations, and review of important data, if necessary.
4. Project Summary should include, where applicable, facts, figures, analyses, and assumptions used during the life of the project to support the conclusions and recommendations.
5. References and Appendices containing detailed computations.

(ii) FORMAT FOR SUBMISSION OF ELECTRONIC/PAPER VERSIONS OF TECHNICAL REPORTS
(JULY 1996)

1. Preparation

- A. General. The Recipient is responsible for providing all technical reports that are identified in the Reporting Requirements Checklist. The Recipient shall submit one good quality hard copy using either permanent or alkaline paper plus an electronic version of each technical report, including, but not limited to, all text, tables, diagrams, photographs, schematics, graphs, and charts. Electronic reports shall be submitted in the Adobe Acrobat Portable Document Format (PDF).
- B. Organization of Technical Reports. The following sections should be included (as appropriate) in technical reports in the sequence shown:

Title Page*
Disclaimer*
Abstract*
Table of Contents*
List(s) of Graphical Materials
Executive Summary*
Introduction*
Results and Discussion*
Conclusion*
References
Bibliography
List of Acronyms and Abbreviations
Appendices (if necessary)

* Any section denoted by an asterisk is required.

The Title Page must be submitted as a separate file (named as stated in 5.(c)(ii)2C[File Naming] below) utilizing the Title Page Form Maker provided to you on a diskette. The Title Page Form Maker must be installed on a hard drive and used with Windows. The Title Page must contain the following information IN THE FOLLOWING SEQUENCE:

Report Title

Type of Report (Quarterly, Semi-Annual, Annual, Topical, Final, etc.)

Reporting Period Start Date

Reporting Period End Date

Principal Author(s)

Date Report was issued (Month [spelled out] and Year [4 digits])

DOE Award Number (e.g., DE-FC22-97PCXXXXX)

Name and address of submitting organization. (This section should also contain the name and address of significant contractors or subcontractors who participated in the production of the report.)

The Disclaimer must follow the title page, and must contain the following paragraph:

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.

Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

- C. Other Documents Not Identified in the Reporting Requirements Checklist (Journal Articles, Conference Papers and Proceedings, etc.). The Recipient shall submit an electronic version of each such document, including, but not limited to, all text, tables, diagrams, photographs, schematics, graphs, and charts. Such documents shall be submitted in the Adobe Acrobat Portable Document Format (PDF).
- D. Company Names and Logos. Except as indicated in 5.(c)(ii)1.B. [Organization of Technical Reports], above, company names, logos, or similar material should not be incorporated into reports.
- E. Copyrighted Material. Copyrighted material should not be submitted as part of a report unless written authorization to use such material is received from the copyright owner and is submitted to DOE with the report.
- F. Measurement Units. All reports to be delivered under this instrument shall use the SI Metric System of Units as the primary units of measure. When reporting units in all reports, primary SI units shall be followed by their U.S. Customary Equivalents in parentheses ().

The Recipient shall insert the text of this clause, including this paragraph, in all subgrants or subcontracts under this grant.

Note: SI is an abbreviation for "Le Systeme International d'Unites."

2. Electronic Media Standard

- A. File Format. Production of high-quality, electronic documents is dependent on the quality of the input that is provided. Thus, the Recipient shall submit an electronic version of all reports in the Adobe Acrobat Portable Document Format (PDF). Each report shall be an integrated file that contains all text, tables, diagrams, photographs, schematics, graphs, and charts.
- B. Submission Format. The electronic file(s) shall be submitted via diskette, file transfer protocol (ftp), or CD-ROM. Diskettes or CD-ROMs must be labeled as follows, and if the ftp alternative is used, an e-mail message sent in conjunction with the ftp file, or a companion ftp file, must contain the following information:

DOE Award Number

Type of Report(s) (Quarterly, Semi-Annual, Annual, Topical, Final)

Reporting Period (if applicable)

Name of submitting organization

Name, phone number and fax number of preparer

Diskette: Diskettes must be 3.5" double-sided, high-density (1.4 Mbyte capacity). If file compression software is used to transmit a PDF file spanning more than one diskette, PKZIP from PKWare, Inc., is the required compression software. For diskettes only: State the number of diskettes in the set (e.g., 1/3)

ftp: At the Recipient's discretion, DOE will provide an unsecured ftp location for electronic transmission of documents. Only final versions of technical reports may be submitted using the ftp alternative.

CD-ROM: The electronic file(s) may be submitted on an ISO9660-format CD-ROM.

- C. File Naming. In naming the electronic file, awardee shall use the standard eight-character naming convention for the main file name, and "PDF" as the three-character extension.

For the main file name, the first five characters are the last five digits from the award number; e.g., for Award Number DE-FC22-97PCXXXXX, the first five characters are 34181.

The next character is a letter that corresponds to the type of report: R is for the Technical Report.

The remaining two characters indicate the chronological number of the particular type of report; e.g., Quarterly Technical Progress Reports for a 5-year award are numbered R01 through R20. If monthly, annual, and a Final Technical Report are also required, the numbers would run from R01 through R86 (60 monthly reports, 20 quarterly reports, 5 annual reports, and 1 final report).

Thus, the main file name for the Sixth Quarterly Technical Progress Report under Award No. DE-AC22-96PC12345 (and no other technical progress reports are required) would be 12345R06. There will be three files submitted. The Technical Report file name for the PDF file would be 12345R06.PDF. The Technical Report file name for the ASCII file will be 12345R06.TXT. The Title page will automatically name itself when saved to a disk in the a: or b: drive and will not be a PDF file.

(d) FINANCIAL AND ENVIRONMENTAL REPORTS - Content/Format of Reports

- (i) Financial Status Report (SF-269 or SF-269A) and the Federal Cash Transaction Report (SF-272). The content shall be as prescribed in 10 CFR 600.152 for Institutions of Higher Education, Hospitals, Other Non-Profit Organizations and Commercial Organizations or 10 CFR 600.241 for States and Local Governments:

(a) Financial Status Report (SF 269A): This form is used to provide DOE with a final accounting of project funds expended. The accounting may be on either a cash or accrual basis. Actual total expenditures and obligations incurred, but not paid, are reported for each major activity.

(b) Federal Cash Transaction Report (SF 272): When the Method of Payment is by advance, the recipient shall submit to DOE a Report of Federal Cash Transactions. For these recipients, DOE shall use information contained in the payment request to monitor grantee cash balances and to obtain disbursement information.

- (ii) Environmental Reports.

1. Hazardous Substance Plan

The Plan shall specifically identify each Hazardous Substance (as defined under 40 CFR 261, Subpart D, entitled Lists of Hazardous Wastes) anticipated to be purchased, utilized or generated in the performance of this Cooperative Agreement.

Format for Hazardous Substance Plan:

For each such Hazardous Substance identified the Plan shall specifically provide the following information:

Description of Substance/Chemical
EPA Hazardous Waste Number
EPA Hazard Code
Anticipated Quantity to be purchased, utilized or generated
Anticipated Hazardous Waste Transporter
Anticipated Hazardous Waste Disposal Facility
Participant and Location (City/Municipality, State)
Anticipated Treatment Method

2. Hazardous Waste Report

The Report shall specifically identify each Hazardous Waste (as defined under 40 CFR 261, Subpart D, entitled Lists of Hazardous Wastes) actually utilized, or generated in the performance of this Cooperative Agreement.

The Hazardous Waste Report is intended as a final reconciliation of anticipated versus actual Hazardous Substances purchased, utilized, or generated in the performance of this Cooperative Agreement.

Format for Hazardous Waste Report:

Description of Substance/Chemical
EPA Hazardous Waste Number
EPA Hazard Code
Actual Quantity Disposed
Actual Hazardous Waste Transporter
Actual Hazardous Waste Disposal Facility Contractor and Location
(City/Municipality/State)
Actual Disposal Date
Actual Treatment Method

(Iii) Software

The Recipient will deliver to the Document Control Center documentation for computer software programs as specified in the Statement of Work, the development of which was supported by federal funds. The documentation is to be presented in two parts: a) programmer's documentation, and b) user's documentation. Copies of the software media, i.e., magnetic tape, floppy disk, etc., shall also be delivered to the Document Control Center.

APPENDIX B

ENVIRONMENTAL QUESTIONNAIRE

ENVIRONMENTAL QUESTIONNAIRE

P.M - Rev 10/01/96

I. BACKGROUND

The Department of Energy's (DOE's) National Environmental Policy Act (NEPA) Implementing Procedures (10 CFR 1021) require DOE to incorporate into its early planning, careful consideration of the potential environmental consequences of all proposed actions. The DOE is to determine at the earliest possible time, whether such actions require either an Environmental Assessment (EA) or an Environmental Impact Statement (EIS), or whether they qualify as a Categorical Exclusion. Completion of an Environmental Questionnaire for each proposed action provides DOE with the information necessary to determine the level of NEPA documentation. The final determination is subject to concurrence by the Federal Energy Technology Center (FETC) Environmental Staff.

II. INSTRUCTIONS

Separate copies of this Environmental Questionnaire should be completed by the principal offeror and all proposed subcontractors. In addition, if the proposed project has activities that will occur at different locations, an independent questionnaire should be prepared for each location. If necessary, additional information can be provided on separate sheets.

In completing this Questionnaire the offeror is reminded that it is important to provide specific quantities regarding air emissions, wastewater discharges, solid wastes, etc., to facilitate the necessary reviews and comparisons. In addition, the offeror should detail the exact location of the project, and should be specific in describing the activities that will take place at that location.

If you have any questions about the type of information being requested or how to respond to a specific question, please call Janice Murphy, U.S. Department of Energy, Federal Energy Technology Center at (412) 892-4512, or contact by fax (412) 892-5917.

III. QUESTIONNAIRE

A. **Project Summary**

1. Solicitation No. _____
2. Proposer and all Proposed Subcontractors

3. Principal Investigator
Telephone Number _____
4. Project Title _____
5. Project Duration _____
6. Project Location (city/township, county, state)

7. Indicate the type of the project:
- | | | | |
|---------------------------------------------------|--------------------------|-------------------------------------------|--------------------------|
| a. Computer Modeling | <input type="checkbox"/> | b. Library/Literature Search | <input type="checkbox"/> |
| c. Paper Study | <input type="checkbox"/> | d. Workshop/Conference | <input type="checkbox"/> |
| e. Laboratory (Batch) Research | <input type="checkbox"/> | f. Bench-scale Research | <input type="checkbox"/> |
| g. Pilot-Scale or Proof-of-Concept-Scale Research | <input type="checkbox"/> | h. Pilot Plant Construction and Operation | <input type="checkbox"/> |
| i. Full-scale Demonstration | <input type="checkbox"/> | j. Other (please describe) | <input type="checkbox"/> |
- _____

If either item a., b., c., or d. was selected for Question A.7., proceed to Section IV; however, if e., f., g., h., i. or j. was selected continue with Part A.

8. Indicate the scale of the proposed project, (e.g. 200 tph of coal). For projects using a flowrate of material to define the scale, give the material used as a basis.

_____ tph (of _____)	_____ MBtu/hr
_____ scfm (of _____)	_____ MW <input type="checkbox"/> electric <input type="checkbox"/> thermal
_____ acfm (of _____)	_____ Other, _____

9. List all activities or tasks to be performed at the location for which this questionnaire is being submitted.

10. List all other locations where work is being performed in relation to this project. (**Note: Please complete a separate questionnaire for each location.**)

11. Please discuss the objectives of the proposed project.

12. On average, what are the frequency (tests per day or tests per week) and duration (length of entire test period) of the tests proposed to be conducted?

13. Please list all materials to be used in the project and all materials to be produced by the project (these materials can be grouped by categories to simplify the response to this question). Also, please estimate the total quantity of these materials over the entire length of the proposed project.

Materials Used (total quantity)	Materials Produced (total quantity)
<input type="checkbox"/> coal ()	<input type="checkbox"/> products -- please list and note total quantity for each:
<input type="checkbox"/> natural gas ()	<input type="checkbox"/> wastewater ()
<input type="checkbox"/> oil ()	<input type="checkbox"/> air emissions ()
<input type="checkbox"/> electricity ()	<input type="checkbox"/> solid waste ()
<input type="checkbox"/> water ()	<input type="checkbox"/> salable by-products -- please list and note total quantity for each:
<input type="checkbox"/> air ()	
<input type="checkbox"/> organic solvents ()	<input type="checkbox"/> other -- please list and note total quantity for each:
<input type="checkbox"/> other-- please list: ()	
<input type="checkbox"/> None	<input type="checkbox"/> None

B. Proposed Project and Its Alternatives

1. List all approaches that you have considered that could achieve the objectives described in A.11, and discuss the anticipated environmental effects of each of these approaches. (Place the approach chosen for this project at the top of the list.)

2. What are the environmental consequences of not implementing this project and, thus the specific technology not being developed (e.g. would emissions increase or decrease)?

C. Project Location

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

2. Please attach a site plan or topographic map of the area that would be affected by the project. Please highlight (or otherwise identify) those specific areas where the project is to be performed.

D. Environmental Impacts

1. Land Use

- a. Identify the location of the proposed project (i.e., city, county, state).

- b. What is the total size of the facility and what portion of this will be used for the proposed project?

- c. What is the present use of the land where the project will be located)?

☐ Urban

☐ Commercial

☐ Suburban

☐ Forest

☐ Industrial

☐ Agricultural

☐ Rural

☐ Research Facility

☐ University Campus

☐ Other:

If the project is laboratory or bench-scale research and is conducted within an existing building, please proceed to Subpart 8 (Atmospheric Conditions/Air Quality). If the project is larger than bench-scale, continue with question D.2.a.

2. Construction Activities and/or Operation

- a. Describe the topography at the project site, include any landforms, etc.

- b. Identify the transmission lines and/or pipelines that traverse the proposed site and clearly mark them on the site plan or topographic map.

☐ None

- c. Describe how land use may be affected by construction activities from the proposed project. ("N/A" is not sufficient, please state, "No construction is anticipated for this project," if no construction is required.)

- d. Describe how land use may be affected by operation activities associated with the proposed project.

- e. Will the project require the construction of settling ponds? If so, where, and estimate the amount of surface area disturbed?

☐ No ☐ Yes, describe

- f.

Will the project affect any existing body of water? If so, please describe.

☐ No ☐ Yes, describe

g. Will the proposed project be located in a floodplain? If so, please describe.

☐ No ☐ Yes, explain

h. Will the proposed project be located on or near wetlands? If so, please describe.

☐ No ☐ Yes, describe

i. Is the project likely to cause erosion?

☐ No ☐ Yes, describe

j. Will any wetlands be impacted by the discharge of wastewater from project activities? Please describe.

☐ No ☐ Yes, describe

k. Will project construction activities result in stream diversion?

☐ No ☐ Yes, describe

3. Geological/Soil Conditions

- a. Please describe the stability (e.g., mine subsidence) of the topography where the project is located.

- b. Is there faulting in the project area? Please identify.

☐ No ☐ Yes, identify faults

- c. Describe the soil in the project area in terms of its productivity, any unique species, and its susceptibility to erosion.

- d. Will project construction activities result in subsidence or changes in soil permeability/filtration? Please describe.

☐ No ☐ Yes, describe

4. Vegetation and Wildlife Resources

- a. Describe the indigenous flora and fauna in the project area.

- b. What state/federal-listed endangered species are in the project area?

☐ None ☐ The following endangered species are located in the project area (please list)

- c. Will any endangered species be affected by the proposed project?
Please discuss.

☐ No ☐ Yes, describe

- d. Describe how construction may impact sensitive or unique habitats.

☐ No Impact ☐ Impact, discuss

- e. Will any species or subspecies, not indigenous to the area, be introduced as a result of the project, (e.g., introducing a new bacterial strain, as in microbial desulfurization projects)?

☐ No ☐ Yes, describe

5. Socioeconomic Conditions

- a. What is the population in the project area?

- b. Describe the employment and labor mix in the project area.

- c. Will there be changes (increases/decreases) in the labor requirements of the area during the project? Please describe.

- 6. Historical/Cultural** ☐ No ☐ Yes, describe

ral Resources

- a. Describe any historical or cultural places in the project area; note if they are listed on the National Register of Historic Places.

☐ None ☐ The following historical or cultural places are located in the project area (please list)

- b. Are there any known archeological sites in the project area?

☐ No ☐ Yes, please list and describe

- c. Will construction disturb any historical site?

☐ No ☐ Yes, explain

7. Visual Resources

- a. Describe any scenic vistas or aesthetic landscaping in the project area?

☐ None ☐ The following visual resources exist in the project area (please list and describe)

- b. Will the proposed project interfere with the visual resources or the present landscape of the area? Please explain.

☐ No ☐ Yes, discuss

All laboratory, bench-scale, or larger projects respond to these questions.

8. Atmospheric Conditions/Air Quality

- a. Describe the local climate.

- b. Describe the existing air quality conditions in the immediate vicinity of the proposed project. Please identify the pollutants for which the project area currently is in attainment with National Ambient Air Quality Standards? (This information should be available from the county environmental agency.)

	<u>Attainment</u>	<u>Non-Attainment</u>
O ₃	<input type="checkbox"/>	<input type="checkbox"/>
SO ₂	<input type="checkbox"/>	<input type="checkbox"/>
PM ₁₀	<input type="checkbox"/>	<input type="checkbox"/>
CO	<input type="checkbox"/>	<input type="checkbox"/>
NO ₂	<input type="checkbox"/>	<input type="checkbox"/>

- c. Will the project be in compliance with the National Emissions Standards for Hazardous Air Pollutants?

☐ No, explain ☐ Yes

- d. What authority regulates the air quality in the project area (please name federal, state, and local authorities)?

- e. Please identify the contact person, address, and telephone number for each authority.

f. When were these authorities contacted regarding the proposed project?

g. How does each regulator (authority) define a major source (e.g., greater than 100 ton/year; thermal input of 250 MBtu/hr)?

h. What types of air emissions are anticipated from the proposed project and what is the total quantity of emissions over the duration of the project?

- | | |
|---------------------------------------------------------------------------------------------|-------------------------------------------------|
| <input type="checkbox"/> None | <input type="checkbox"/> Particulate _____ |
| <input type="checkbox"/> SO ₂ _____ | <input type="checkbox"/> H ₂ S _____ |
| <input type="checkbox"/> NO _x _____ | |
| <input type="checkbox"/> organic solvent vapors or other volatile organic compounds -- list | |

☐ hazardous air pollutants -- list

☐ other -- list

i. Are any types of emission control or particulate collection devices being used? If so, please describe (include collection efficiencies).

-
- | | |
|-----------------------------|----------------------------------------|
| <input type="checkbox"/> No | <input type="checkbox"/> Yes, describe |
|-----------------------------|----------------------------------------|

j. If no control devices are used, how are emissions vented to the atmosphere?

k. Will the project reduce the amount of air emissions in the area?

☐ No ☐ Yes, explain

l. Identify the air quality regulations that govern the emissions in the project area (please identify federal, state, and local regulations)?

9. Hydrologic Conditions/Water Quality

a. What is the closest body of water to the project area and how far is it from the site of the project? Indicate on the site plan.

b. What is the source of potable and process water for this project? Identify the water system where the water is withdrawn.

c. Quantify the total amount of wastewater generated during the project?

☐ None
☐ non-contact cooling water (_____ gallons)
☐ process water (_____ gallons)
☐ sanitary and/or grey water (_____ gallons)
☐ other -- describe (_____ gallons)

d. What are the components of each type of wastewater (e.g., coal fines)?

- e. If the wastewater is discharged to a local treatment facility, please identify the facility.

-
- ☐ Not discharged to a local treatment facility.
☐ Discharged to (please name)
-

- f. Please describe how this wastewater will be treated.
-

- g. What authority regulates water quality in the project area (please name federal, state, and local authorities)?
-

- h. Please identify the contact person, address, and telephone number for each authority.
-

- i. When were these authorities contacted regarding the proposed project?
-

- j. Will there be any run-off or leachates from storage piles or waste disposal sites? If so, please discuss how this wastewater will be collected.
-

- ☐ No ☐ Yes, describe
-

- k. What laws regulate the effluents/water quality in the project area (please identify federal, local, and state laws)?

10. Solid and Hazardous Wastes

- a. Please describe in detail and provide the total quantity of all nonhazardous wastes that will be generated as a result of this project. Solid wastes are defined in RCRA as any solid, liquid, semi-solid or contained gaseous material which is discarded, has served its intended purpose, or is a manufacturing or mining by-product (40 CFR 260, Appendix I).

	<u>Quantity</u>
<input type="checkbox"/> None	
<input type="checkbox"/> municipal solid waste, i.e., paper, plastic, etc.	(<u> </u>)
<input type="checkbox"/> coal or coal by-products	(<u> </u>)
<input type="checkbox"/> other -- please list	(<u> </u>)

- b. Please describe in detail and provide the total quantity of all hazardous wastes (40 CFR 261.4) that will be generated as a result of this project.

☐ None ☐ The following hazardous wastes will be generated (please list and provide total quantity)

- c. Will the solid wastes be disposed of on-site or off-site?

☐ on-site, describe facility
☐ off-site, describe facility and location

- d. Name the landfill and location where solid wastes will undergo disposal.

e. How will the waste be transported to the landfill?

f. How many trips will be made to the landfill?

- ☐ None
☐ Number of trips: _____

g. What volume of the landfill will the solid waste occupy?

- ☐ None
☐ Volume: _____ cubic feet

h. What waste management organization has permit authority for the landfill (please identify federal, state, and local authorities)?

i. Please identify contact person at each authority, address, and telephone number.

j. When were these authorities contacted regarding the proposed project?

- k. If hazardous/toxic solid wastes are subject to land disposal restrictions in RCRA, how will the wastes from these substances be collected, treated, and disposed of?

-
- ☐ Not subject to RCRA land disposal restrictions.
☐ Subject to RCRA land disposal restrictions (explain):
-

- l. If hazardous waste is to be disposed of off-site, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility? Please identify the facility.

-
- ☐ Not to be disposed of off-site.
☐ Arrangements have been made with a certified TSD facility (identify):
-

- m. What treatment/storage/disposal methods will be used?

-
- ☐ None
☐ Treatment/storage/disposal methods will be used, please describe
-

11. Health/Safety Factors

- a. Please identify any hazardous or toxic substances to be used in the proposed project.

-
- ☐ None
☐ Hazardous or toxic substances will be used (identify):
-

- b. What are the likely impacts of these substances on the human health and the environment?

-
- c. Describe any increases in ambient noise levels.

-
- ☐ None ☐ Increase in ambient noise level (describe)
-

E. Regulatory Compliance

1. For the following laws describe the permitting requirements, manifests, and contacts that are necessary:

a. Resource Conservation and Recovery Act (RCRA):

-
- ☐ Compliance not required.
 - ☐ Required (describe)
-

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):

-
- ☐ Compliance not required.
 - ☐ Required (describe)
-

c. Toxic Substance Control Act (TSCA):

-
- ☐ Compliance not required.
 - ☐ Required (describe)
-

d. Water Pollution Control Act (WPCA):

-
- ☐ Compliance not required.
 - ☐ Required (describe)
-

e. Clean Air Act (CAA):

-
- ☐ Compliance not required.
 - ☐ Required (describe)
-

f. Endangered Species Act (ESA):

-
- ☐ Compliance not required.
 - ☐ Required (describe)
-

g. Floodplains and Wetlands Regulations:

-
- ☐ Compliance not required.
 - ☐ Required (describe)
-

h. Fish and Wildlife Coordination Act (FWCA):

-
- ☐ Compliance not required.
 - ☐ Required (describe)
-

i. Farmland Protection Policy Act (FPPA):

-
- ☐ Compliance not required.
 - ☐ Required (describe)
-

j. National Historic Preservation Act (NHPA):

-
- ☐ Compliance not required.
 - ☐ Required (describe)
-

k. Coastal Zone Management Act (CZMA):

-
- ☐ Compliance not required.
 - ☐ Required (describe)
-

l. American Indian Religions Freedom Act (AIRFA):

-
- ☐ Compliance not required.
☐ Required (describe)
-

m Wild and Scenic Rivers Act (WSRA):

-
- ☐ Compliance not required.
☐ Required (describe)
-

2. Identify any other environmental laws and regulations (federal, state, and local) for which compliance would be necessary for this project and describe the permitting requirements, manifests, and contacts that are necessary:
-
-

F. Please summarize significant impacts resulting from this project.

-
- ☐ No significant impacts (provide supporting detail);
☐ Significant impacts (describe)
-

IV. CERTIFICATION BY PROPOSER:

I hereby certify that the information provided herein is current, accurate and complete as of the date shown immediately below.

DATE: _____ / _____ / _____
 month day year

SIGNATURE: _____

TYPED NAME: _____

TITLE: _____

ORGANIZATION: _____

V. REVIEW AND APPROVAL BY DOE:

I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been answered, and judge the responses to be consistent with the efforts proposed. Based on the information in the questionnaire, I certify that the following is true:

1. _____ The proposed action falls under one or more of the categorical exclusions (CXs) described in Appendices A or B of Subpart D of the DOE NEPA Implementing Procedures. This Action would not (1) violate applicable ES&H requirements, (2) require siting of waste TSD or recovery facilities, (3) disturb hazardous substances (excluding naturally occurring petroleum and natural gas), thus producing uncontrolled or unpermitted releases, and (4) adversely affect environmentally sensitive resources.

Furthermore, this Action (1) does not present any extraordinary circumstances such that the action might have a significant impact upon the human environment, (2) is not connected to other actions with potentially significant impacts, and (3) is not related to other actions with cumulatively significant impacts. The list below identifies CXs commonly used.

THE PROPOSED ACTION FALLS WITHIN THE FOLLOWING CLASS OF ACTIONS (CHECK ONE OR MORE):

General Administration/Management

- ☐ A1 - Routine business actions
- ☐ A2 - Administrative contract amendments
- ☐ A4 - Interpretations/rulings for existing regulations
- ☐ A5 - Regulatory interpretations without environmental effect
- ☐ A6 - Procedural rulemakings
- ☐ A7 - Transfer of property, use unchanged
- ☐ A8 - Award of technical support/M&O/personal service contracts
- ☐ A9 - Info gathering, analysis, documentation, dissemination & training
- ☐ A10- Reports on non-DOE legislation
- ☐ A11- Technical advice and planning assistance
- ☐ A12- Emergency Preparedness planning
- ☐ A13- Procedural Orders, Notices, and Guidelines
- ☐ A14- Approval of technical exchange arrangements
- ☐ A15- International umbrella agreements for energy R&D

Facility Operations

- ☐ B1.2- Training exercises and simulation
- ☐ B1.3- Routine maintenance and custodial services
- ☐ B1.4- Air conditioning installation for existing equipment
- ☐ B1.5- Cooling water system improvements in existing structures
- ☐ B1.6- Installation of runoff/spill control retention tanks & basins
- ☐ B1.7- Communication system & data processing equipment acquisition, installation, operation, removal
- ☐ B1.8- Screened water intake/outflow structure mods, within permits
- ☐ B1.11- Fence installation, no adverse effect on wildlife or water flow
- ☐ B1.12- Detonation/burning of failed/damaged high explosives or propellants in designated areas, within permits
- ☐ B1.13- Onsite pathway or short access road construction/acquisition
- ☐ B1.15- Support building or structure, non-waste storage, const/oper
- ☐ B1.16- Removal of asbestos in accordance with regulations
- ☐ B1.17- Removal of PCB items from aboveground structures
- ☐ B1.18- Water supply well const/oper, from existing field, no degradation
- ☐ B1.21- Noise abatement
- ☐ B1.22- Building relocation to developed area/demolition and disposal

- ☐ B1.23- Demolition/disposal of buildings, equipment & structures

- ☐ B1.24- Transfer, disposition, or acquisition of uncontaminated structures or equipment, environmental quality maintained
- ☐ B1.25- Transfer, disposition, or acquisition of uncontaminated land for habitat preservation/wildlife management
- ☐ B1.26- Small (<250,000 GPD) WWT facility const/oper/decom
- ☐ B1.27- Disconnection of utilities
- ☐ B1.28- Placement of unused facilities in environmentally safe condition
- ☐ B1.29- Small onsite const/demolition waste disposal facility const/oper/decom
- ☐ B1.30- Transfer/transportation actions, quantities incidental to amounts at receiving site
- ☐ B1.31- Relocation/operation of machinery or equipment, similar use
- ☐ B1.32- Traffic flow adjustments, existing roads

Safety and Health

- ☐ B2.1- Modifications to enhance workplace habitability
- ☐ B2.2- Installation/improvement of building/equipment instrumentation
- ☐ B2.3- Installation of equipment for personnel safety and health
- ☐ B2.5- Facility safety and environmental improvements, replacement or upgrade of facility components, no change in useful life

General Research

- ☐ B3.1- Site characterization/environmental monitoring
- ☐ B3.3- Research related to conservation of fish and wildlife
- ☐ B3.4- Transport packaging tests for radioactive/hazardous material
- ☐ B3.6- R&D or pilot facility construction/operation/decommissioning
- ☐ B3.7- New infill exploratory, experimental oil/gas/geothermal well construction/operation
- ☐ B3.8- Outdoor ecological/environmental research in small area
- ☐ B3.9- Certain CCT Demonstration activities, emissions unchanged
- ☐ B3.11- Outdoor tests, experiments on materials and equipment components, no source, special nuclear, or byproduct materials

Conservation, Fossil, and Renewable Energy activities

- ☐ B5.1- Actions to conserve energy, no indoor air quality degradation
- ☐ B5.2- Modification to oil/gas/geothermal pumps and piping, no flow changes or air emission effects

- ☐B5.3-Modification (not expansion)/abandonment of oil storage access/brine injection/gas/geothermal wells; no site closure
- ☐B5.4-Repair/replacement of pipeline sections within maintenance provisions of a Section 404 permit
- ☐B5.5-Short crude oil/gas/steam/geothermal pipeline const/oper within a single industrial complex/existing right-of-way
- ☐B5.6-Oil spill cleanup operations

Environmental Restoration/Waste Minimization

- ☐B6.1-Cleanup actions: small-scale, short-term (<\$5MM & 5 years)
- ☐B6.2-Siting/construction/operation of temporary pilot-scale waste collection/treatment/stabilization/containment facilities
- ☐B6.3-Environmental control system improvements in existing structures, recycle/release/disposal within permitted facility
- ☐B6.4-Packaged hazardous waste storage facility const/oper/decom
- ☐B6.5-Const/oper/decom of onsite facility for characterizing/sorting or overpacking previously packaged waste (not high-level or spent nuclear fuel; no unpacking)

- ☐B6.6-Modification of facility for storing, packaging, or repacking waste (not high-level or spent nuclear fuel)
- ☐B6.8-Minor operational changes to minimize waste or reuse materials
- ☐B6.9-Small-scale, temporary measures to reduce contaminated GW migration
- ☐B6.10-Upgraded waste storage facility (<50,000 ft²) for existing waste const/oper/decom

Other*

- ☐ Specify category:

*For more complete descriptions of the above CXs or for a complete listing, refer to Appendix A and B of Subpart D of DOE's NEPA Implementing Procedures, 10 CFR 1021.

2. _____ The proposed action does not qualify as a CX as identified in Subpart D of DOE's NEPA Implementing Procedures, and therefore, may require further documentation in the form of an Environmental Assessment or Environmental Impact Statement.

Project Manager: _____ Date: _____

PM NEPA Review: _____ Date: _____

NCO Approval: _____ Date: _____

APPENDIX C

APPLICATION FOR FEDERAL ASSISTANCE

U.S. DEPARTMENT OF ENERGY
FEDERAL ENERGY TECHNOLOGY CENTER

APPLICATION FOR FEDERAL ASSISTANCE
(Program Opportunity Notice)

1. SOLICITATION NUMBER		2. DATE SUBMITTED	Applicant Identifier
TYPE OF SUBMISSION <i>Application</i> <input type="checkbox"/> Construction <input checked="" type="checkbox"/> Non-Construction		3. DATE RECEIVED BY STATE	State Application Identifier
<i>Preapplication</i> <input type="checkbox"/> Construction <input type="checkbox"/> Non-Construction		4. DATE RECEIVED BY FEDERAL AGENCY	Federal Identifier
5. APPLICANT INFORMATION			
Legal Name		Organizational Unit	
Address (give city, county, state, and zip code):		Name and telephone number of the person to be contacted on matters involving this application (give area code)	
6. EMPLOYER IDENTIFICATION NUMBER (EIN): _ _ - _ _ _ _ _		7. TYPE OF APPLICANT: (enter appropriate letter in box) <input type="checkbox"/> A. State B. County C. Municipal D. Township E. Interstate F. Intermunicipal G. Special District H. Independent School Dist. I. State Controlled Institution of Higher Learning J. Private University K. Indian Tribe L. Individual M. Profit Organization N. Other (Specify) _____	
8. TYPE OF APPLICATION: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision If Revision, enter appropriate letter(s) in box(es): <input type="checkbox"/> <input type="checkbox"/> A. Increase Award B. Decrease Award C. Increase Duration D. Decrease Duration Other (specify) _____		9. NAME OF FEDERAL AGENCY U.S. Department of Energy/Federal Energy Technology Center	
10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: <u>8</u> <u>1</u> . <u>5</u> <u>0</u> <u>2</u> TITLE: "Miscellaneous Federal Assistance Program"		11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT: (Include project title and duration (in months))	
12. AREAS AFFECTED BY PROJECT (cities, counties, states, etc.)			
13. PROPOSED PROJECT		14. CONGRESSIONAL DISTRICTS OF (Name of County and # of Congress District (for both)):	
Start Date	Ending Date	a. Applicant	b. Project
15. ESTIMATED FUNDING		16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?	
a. Federal	\$.00	a. YES. THIS PREPARATION APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON DATE _____	
b. Applicant	\$.00	b. NO <input checked="" type="checkbox"/> PROGRAM IS NOT COVERED BY E.O. 12372	
c. State	\$.00	<input type="checkbox"/> OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW	
d. Local	\$.00	17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?	
e. Other	\$.00	<input type="checkbox"/> Yes If "Yes," attach an explanation <input type="checkbox"/> No	
f. Program Income	\$.00		
g. TOTAL	\$.00		
18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT. THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED.			
a. Typed Name of Authorized Representative		b. Title	c. Telephone Number
d. Signature of Authorized Representative			e. Date Signed

INSTRUCTIONS FOR THE FETC F4230.1#

This is a standard form used by applicants as a required facesheet for preapplications and applications submitted for Federal assistance. It will be used by Federal agencies to obtain applicant certification that States which have established a review and comment procedure in response to Executive Order 12372 and have selected the program to be included in their process, have been given an opportunity to review the applicant's submission.

- | Item: | Entry: | Item: | Entry: |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | Self-explanatory. | 12. | List only the largest political entities affected (e.g., State, counties, cities). |
| 2. | Date application submitted to Federal agency (or State if applicable) & applicant's control number (if applicable). | 13. | Self-explanatory. |
| 3. | State use only (if applicable). | 14. | List the applicant's Congressional District and any District(s) affected by the program or project. |
| 4. | If this application is to continue or revise an existing award, enter present Federal identifier number. If for a new project, leave blank. | 15. | Amount requested or to be contributed during the first funding/budget period by each contributor. Value of in-kind contributions should be included on appropriate lines as applicable. If the action will result in a dollar change to an existing award, indicate <u>only</u> the amount of the change. For decreases, enclose the amounts in parentheses. If both basic and supplemental amounts are included, show breakdown on an attached sheet. For multiple program funding, use totals and show breakdown using same categories as item 15. |
| 5. | Legal name of applicant, name of primary organizational unit which will undertake the assistance, and name and telephone number of the person to contact on matters related to this application. | 16. | Applicants should contact the State Single Point of Contact (SPOC) for Federal Executive Order 12372 to determine whether the application is subject to the State intergovernmental review process. |
| 6. | Enter Employer Identification Number (EIN) as assigned by the Internal Revenue Service. | 17. | This question applies to the applicant organization, not the person who signs as the authorized representative. Categories of debt include delinquent audit disallowances, loans and taxes. |
| 7. | Enter the appropriate letter in the space provided. | 18. | To be signed by the authorized representative of the applicant. A copy of the governing body's authorization for you to sign this application as official representative must be on file in the applicant's office. (Certain Federal agencies may require that this authorization be submitted as part of the application.) |
| 8. | Check appropriate box and enter appropriate letter(s) in the space(s) provided:

_____ "New" means a new assistance award.

_____ "Continuation" means an extension for an additional funding/budget period for a project with a projected completion date.

_____ "Revision" means any change in the Federal Government's financial obligation or contingent liability from an existing obligation. | | |
| 9. | Name of Federal agency from which assistance is being requested with this application. | | |
| 10. | Use the Catalog of Federal Domestic Assistance number and title of the program under which assistance is requested. | | |
| 11. | Enter a brief descriptive title of the project. If more than one program is involved, you should append an explanation on a separate sheet. If appropriate (e.g., construction or real property projects), attach a map showing project location. For preapplication, use a separate sheet to provide a summary description of this project. | | |

APPENDIX D
QUALIFICATION CERTIFICATION
COST SHARE PERCENTAGES

QUALIFICATION CERTIFICATION

Program Opportunity Notice No. DE-PS22-97PC96052

Cost Share Percentages

I, the undersigned authorized representative for _____
(name of

_____, for the proposal entitled: "
organization) _____

_____"

now being submitted to the U.S. Department of Energy for financial assistance pursuant to Program Opportunity Notice DE-PS26-97FT34181, do hereby agree to provide a minimum cost share of 50% of total allowable project costs.

Signature of
Authorized Representative

Typed Name and Title
Authorized Representative

Date

Name of Proposer

APPENDIX E

COST ESTIMATE AND FINANCING EXHIBITS

DOE is providing this Appendix as an aid to offerors in completing Volume II, Business/Financial Volume. Submission of all information contained herein will help DOE in determining the reasonableness and adequacy of the offeror's funding/financing plan. Offerors are not limited to providing only the Exhibits and should submit additional information that he believes will aid DOE in its determinations. This information includes:

- o The extent to which the offeror, its parents or other project participants will contribute equity funds to the project and the source(s) of such funds.
- o The nature and extent to which external financing will be required and sought and the prospective source(s) of such funds.
- o The extent to which the offeror will seek state and local grants, loans, industry-sponsored research, or other funding; the source(s) of such funds.
- o Schedule of project funding requirements.
- o State the dollar level of in-kind contributions.
- o The effect on the project of failing to obtain funds listed in the plan; also discuss possible alternative sources of funds.
- o Whether the offeror or any other project participant will finance any portion of the required funds on a recourse basis.
- o The types and estimated fair market value of assets (if any) that the offeror or such other participant will pledge as collateral for any outside financing.
- o What entities will guarantee the financing.

TABLE OF CONTENTS

<u>EXHIBIT</u>	<u>TITLE</u>
A	SUMMARY OF COST ELEMENTS
B	SUMMARY FINANCING PLAN
C	SUMMARY OF IN-KIND CONTRIBUTIONS

NOTE: The attached exhibit forms are provided as a convenience to the offeror to show the required information. The offeror may, however, provide a facsimile with the required information.

EXHIBIT A

SUMMARY OF COST ELEMENTS

The attached form for Exhibit A should be used to provide the required Summary of Cost Elements information. This information should be provided by the offeror. If the total cost for any individual subcontract and/or consultant exceeds 20% of the proposed total estimated cost, then the same information should be provided for that subcontractor and/or consultant. This information may be based on estimates made by the offeror in the event that the subcontractor and/or consultant has not yet been identified. The total of the In-Kind Contributions should agree with the total in Exhibit C, Summary of In-Kind Contributions.

EXHIBIT B

SUMMARY FINANCING PLAN

and

SUMMARY FINANCING PLAN BY BUDGET PERIOD

The attached form for Exhibit B should be used to provide the summary for financing the entire project. This is important to the comprehensive evaluation of the finance criteria. The cost share dollars and percentages shown in Exhibit B should be the same as in the Authorization Certification or SF 424 required by Appendix F. In-Kind Contributions should be detailed in Exhibit C, Summary of In-Kind Contributions, and the totals should match those shown in Exhibit A, Summary of Cost Elements.

EXHIBIT C

SUMMARY OF IN-KIND CONTRIBUTIONS

The offeror is to provide the following information for all In-Kind Contributions. The attached form for Exhibit C should be used with a narrative attachment, as required, to fully identify and support the proposed In-Kind Contributions. The information must be verifiable to the offeror's records. Provide the information requested which is appropriate for the type of In-Kind Contribution being proposed.

SOURCE OF IN-KIND CONTRIBUTION

The name and role of the contributor.

DESCRIPTION OF IN-KIND CONTRIBUTION

The type of In-Kind Contribution, such as property, equipment, land, etc., and a brief description of the expected use.

AVAILABILITY/AMOUNT OF USE

Provide the total amount of time the item is available for use and the estimated amount of time the item will be used on/for this project.

UNIT VALUE

Provide the unit value and the quantity, as appropriate.

PROPOSED VALUE (by Total and by Year)

State the estimated value. The estimated value will be developed following the DOE financial assistance rules in 10 CFR 600 Subparts A and E for state or local government recipients, or 10 CFR 600 Subpart B for all other recipients.

The following information should be provided in an attachment to the form for Exhibit C, as necessary.

DATE OF ACQUISITION AND ACQUISITION COST

Date when the item was originally purchased and original acquisition cost. Provide documentation to support original acquisition cost stated.

EXHIBIT A
SUMMARY OF COST ELEMENTS BY TASK AND YEAR

PROPOSER:

PAGE ___ **OF** ___

PROJECT TITLE:

DATE _____

TASK NUMBER:	ESTIMATED COST* YEAR:	ESTIMATED COST* YEAR:	ESTIMATED COST* YEAR:	TOTAL
COST ELEMENT				
1. TOTAL DIRECT MATERIAL	\$		\$	\$
A) MAJOR EQUIPMENT	\$		\$	\$
B) BULK PURCHASES	\$		\$	\$
C) OTHER	\$		\$	\$
2. MATERIAL OVERHEAD	\$		\$	\$
3. DIRECT LABOR: HOURS	HRS		HRS	HRS
COST	\$		\$	\$
4. LABOR OVERHEAD	\$		\$	\$
5. SPECIAL EQUIPMENT	\$		\$	\$
6. SUBCONTRACTS	\$		\$	\$
7. CONSULTANTS	\$		\$	\$
8. TRAVEL	\$		\$	\$
9. OTHER DIRECT COSTS (ODCs)	\$		\$	\$
10. TOTAL DIRECT COSTS (INCLUDING IN-KIND CONTRIBUTIONS) + OVERHEAD (ITEMS 1 THROUGH 9)	\$		\$	\$
11. GENERAL & ADMINISTRATIVE (G&A)	\$		\$	\$
12. TOTAL ESTIMATED COSTS (INCLUDING IN-KIND CONTRIBUTIONS)	\$		\$	\$
13. IN-KIND CONTRIBUTIONS INCLUDED ABOVE (EXH. C)	\$		\$	\$

14. OTHER COST-SHARING (CASH, ETC.)	\$		\$	\$
15. NET DOE FUNDING REQUIRED (LINE 12 MINUS LINES 13+ 14)	\$		\$	\$

*Includes escalation

EXHIBIT B
SUMMARY FINANCING PLAN

PROPOSER:

PAGE ___ OF ___

PROJECT TITLE:

DATE _____

DOLLARS	BUDGET PERIOD 1	BUDGET PERIOD 2	BUDGET PERIOD 3	TOTAL PROJECT
CASH CONTRIBUTIONS	\$	\$		\$
IN-KIND CONTRIBUTIONS	\$	\$		\$
TOTAL NON-DOE COST SHARE	\$	\$		\$
U. S. DOE	\$	\$		\$
TOTAL PROJECT*	\$	\$		\$

PERCENTAGE OF TOTAL PROJECT	BUDGET PERIOD 1	BUDGET PERIOD 2	BUDGET PERIOD 3	TOTAL PROJECT
CASH CONTRIBUTIONS	%	%		%
IN-KIND CONTRIBUTIONS	%	%		%
TOTAL NON-DOE COST SHARE	%	%		%
U. S. DOE	%	%		%
TOTAL PROJECT	100%	100%		100%

*Amount should agree with Total Proposed Cost (including escalation) on Exhibit A.

SUMMARY OF IN-KIND CONTRIBUTIONS

PAGE **OF**

DATE _____

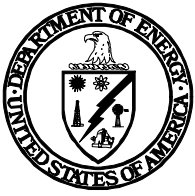
[illegible]

Note(s): 1. Provide on separate sheet an explanation for how unit value and proposed value (by year) were determined for EACH item of in-kind contribution.

APPENDIX F

FETC ASSURANCES

NON-CONSTRUCTION PROGRAMS PACKAGE



U. S. Department of Energy
Federal Energy Technology Center

3610 Collins Ferry Road
P.O. Box 880
Morgantown, WV 26507-0880

626 Cochran's Mill Road
P.O. Box 10940
Pittsburgh, PA 15236-0940

FETC ASSURANCES

NON-CONSTRUCTION PROGRAMS PACKAGE

The following forms must be completed for all Federally assisted non-construction programs:

Assurance	Standard Form 424B, "Assurances - Non-Construction Programs" Nos. 1 to 18	Page 2
Assurance 19	Certification Regarding a Drug-Free Workplace	Page 3
Assurance 20	Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions	Page 4
Assurance 21	Certification for Contracts, Grants, Loans, and Cooperative Agreements (DEC 1989)	Page 5
SF - LLL	Disclosure of Lobbying Activities	Page 7
DOE F 1600.5	U.S. Department of Energy Assurance of Compliance Nondiscrimination in Federally Assisted Programs (OMB Burden Disclosure Statement)	Page 9

ASSURANCES - NON-CONSTRUCTION PROGRAMS

OMB Approval No. 0348-0040

Note: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States, and if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award, and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the nineteen statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to : (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age. (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse. (f) The Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. 290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records. (h) Title VII of the Civil Rights Act of 1968 (42 U.S.C. 33601 et seq.), as amended, relating to non discrimination in the sale, rental, or financing of housing. (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made. and (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance Policies Act of 1970 (P.L. 91-646, which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply with the provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §§874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally assisted construction subagreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988. (e) assurance of project consistency with the approved State Management Program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq); (f) conformity of Federal actions to State (Clear Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §7401 et seq); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended, (P.L. 93-523); and (h) protection of endangered species under the Endangered Species Act of 1973, as amended, (P.L. 930205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq) related to protecting components or potential components of the national wild and scenic rivers systems.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. 469a-1 et seq).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. 2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. 334801 et seq) which prohibits the use of lead based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act of 1984.
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations and policies governing this program.

19. CERTIFICATION REGARDING A DRUG-FREE WORKPLACE

This certification is required by the Drug-Free Workplace Act of 1988 (Pub. L. 100-690, Title V, Subtitle D) and is implemented through additions to the Debarment and Suspension regulations, published in the Federal Register on January 31, 1989.

An organizational applicant certifies that it will provide a drug-free workplace by:

- (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violations of such prohibition;
- (b) Establishing a drug-free awareness program to inform such employees about--
 - (1) The dangers of drug abuse in the workplace;
 - (2) The grantee's policy of maintaining a drug-free workplace;
 - (3) Any available drug counseling, rehabilitation, and employee assistance programs; and
 - (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- (c) Making it a requirement that each employees engaged in performance of the grant be given a copy of the statement required by paragraph (a);
- (d) Notifying the employee in the statement required by paragraph (a) that, as a condition of continued employment under the grant, the employee will--
 - (1) Abide by the terms of the statement; and
 - (2) Notify the employer of any criminal drug statute conviction for a violation occurring in the workplace not later than five (5) calendar days after such conviction;
- (e) Notifying the agency within ten (10) calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction;
- (f) Taking one of the following actions within thirty (30) calendar days after receiving notice under subparagraph (d)(2), with respect to any employee who is convicted--
 - (1) Taking appropriate personnel action against such employee, up to and including termination; or
 - (2) Requiring such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;
- (g) Making a good faith effort to maintain a drug-free workplace through implementation of paragraphs (a), (b), (c), (d), (e), and (f).

Place of Performance: The applicant shall insert in the space provided below the site(s) for the performance of work done in connection with the specific grant: (street address, city, county, state, zip code).

An applicant who is an individual certifies that, as a condition of the grant, he/she will not engage in the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance in conducting any activity with this grant.

This assurance is given in connection with any and all financial assistance from the Department of Energy after the date this form is signed. This includes payments after such date for financial assistance approved before such date. The applicant recognizes and agrees that any such assistance will be extended in reliance on the representations and agreements made in this assurance, and the United States shall have the right to seek judicial enforcement of this assurance. This assurance is binding on the applicant, its successors, transferees, and assignees, and on the authorized official (or individual applicant, as appropriate) whose signature appears below.

20. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS-PRIMARY COVERED TRANSACTIONS

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 34 CFR Part 85. Section 85.510, Participants' responsibilities. The regulations were published as Part VII of the May 26, 1988 Federal Register (pages 19160-19211).

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
 - a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - b. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1.b. of this certification; and
 - d. Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
2. Where the prospective primary participants is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Instructions for Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions

1. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. This certification or explanation will be considered in connection with the department of agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.
3. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary

participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

4. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "Proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
6. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.
7. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion-Lower tier Covered Transactions," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded. from the covered transactions, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
10. Except for transactions authorized under paragraph 6 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

21. CERTIFICATION FOR CONTRACTS, GRANTS, LOANS, AND COOPERATIVE AGREEMENTS (DEC 1989)

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriate funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,00 for each such failure.

22. SIGNATURE/CERTIFICATION

Organization Name

Name and Title of Authorized Representative

Signature

Date

DISCLOSURE OF LOBBYING ACTIVITIES

Approved by OMB
0348-0046

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352
(See reverse for public burden disclosure.)

1. Type of Federal Action <input type="checkbox"/> a. contract <input type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan agreement <input type="checkbox"/> f. loan insurance	2. Status of Federal Action <input type="checkbox"/> a. Bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	3. Report Type: <input type="checkbox"/> a. Initial filing <input type="checkbox"/> b. material change For Material Change only: Year ____ quarter ____ date of last report ____
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

4. Name and Address of Reporting Entity: <input type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, <i>if known</i> : Congressional District, <i>if known</i> :	5. If Reporting Entity in No.4 is Subawardee. Enter Name and Address of Prime: Congressional District, <i>if known</i> :
6. Federal Department/Agency:	7. Federal Program Name/Description: A Number, <i>if applicable</i> :
8. Federal Action Number, <i>if known</i> :	9. Award Amount, <i>if known</i> : \$
10. a. Name and Address of Lobbying Registrant (<i>if individual, last name, first name, MI</i>):	b. Individuals Performing Services (<i>including address if different from No. 10a</i>) (<i>last name, first name, MI</i>):

11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$70,000 and not more than \$100,000 for each failure.	Signature: _____ Print Name: _____ Title: _____ Telephone No: _____ Date: _____
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------

Federal Use Only:	Authorized for local reproduction Standard Form - LLL
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INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of connection with a covered Federal action. Complete all items that apply for both the initial and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a follow-up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, state and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g. the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in item 4 checks "Subawardee", then enter the full name, address, city, state and zip code of the prime Federal recipient, include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, state and zip code of the Registrant under the Lobbying Disclosure Act of 1995 engaged by the reporting entity identified in item 4 to influence the covered Federal action.

(b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).
11. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, D.C. 20503.

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**U.S. Department of Energy
Assurance of Compliance
Nondiscrimination in Federally Assisted Programs**

OMB NO.

1910-0400

OMB Burden Disclosure Statement

Public reporting for this collection of information is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Office of Information Resources Management Policy, Plans, and Oversight; Records Management Division, HR-422-GTN, Paperwork Reduction Project (1910-0400), U.S. Department of Energy, 1000 Independence Avenue, S.W., Washington, DC 20585, and to the Office of Management and Budget (OMB), Paperwork Reduction Project (1910-0400), Washington, D.C. 20503.

(Hereinafter called the "Applicant") HEREBY AGREES to comply with Title VI of the Civil Rights Act of 1964 (Pub. L. 88-352), Section 16 of the Federal Energy Administration Act of 1974 (Pub. L. 93-275), Section 401 of the Energy Reorganization Act of 1974 (Pub. L. 93-438), Title IX of the Education Amendments of 1972 as amended (Pub. L. 92-318, Pub. L. 93-588 and Pub. L. 94-482), Section 504 of the Rehabilitation Act of 1973 (Pub. L. 93-112), the Age Discrimination Act of 1975 (Pub. L. 94-135), Title VIII of the Civil Rights Act of 1968 (Pub. L. 90-284), the Department of Energy Organization Act of 1977 (Pub. L. 95-91), and the Energy Conservation and Production Act of 1976 as amended (Pub. L. 94-385), and Title 10, Code of Federal Regulations, Part 1040. In accordance with the above laws and regulations issued pursuant thereto, the Applicant agrees to assure that no person in the United States shall on the ground of race, color, national origin, sex, age, or handicap be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity in which the Applicant receives Federal assistance from the Department of Energy.

Applicability and Period of Obligation

In the case of any service, financial aid, covered employment, equipment, property, or structure provided, leased, or improved with Federal Assistance extended to the Applicant by the Department of Energy, this assurance obligates the Applicant for the period during which Federal Assistance is extended. In the case of any transfer of such service, financial aid, equipment, property, or structure, this assurance obligates the transferee for the period during which Federal assistance is extended. If any personal property is so provided, this assurance obligates the Applicant for the period during which it retains ownership or possession of the property. In all other cases this assurance obligates the Applicant for the period during which the Federal assistance is extended to the Applicant by the Department of Energy.

Employment Practices

Where a primary objective of the Federal assistance is to provide employment or where the Applicant's employment practices affect the delivery of services in programs or activities resulting from Federal assistance extended by the Department, the Applicant agrees not to discriminate on the ground of race, color, national origin, sex, age, or handicap in its employment practices. Such employment practices may include, but are not limited to, recruitment, recruit advertising, hiring, layoff or termination, promotion, demotion, transfer, rates of pay, training, and participation in upward mobility programs or other forms of compensation and use of facilities.

Subrecipient Assurance

The Applicant shall require any individual, organization, or other entity with whom it subcontracts, subgrants, or subleases for the purpose of providing any service, financial aid, equipment, property, or structure to comply with laws cited above. To this end, the subrecipient shall be required to sign a written assurance form, however, the obligation of both recipient and subrecipient to ensure compliance is not relieved by the collection or submission of written assurance forms.

Data Collection and Access to Records

The Applicant agrees to compile and maintain information pertaining to programs or activities developed as a result of the Applicant's receipt of Federal assistance from the Department of Energy. Such information shall include, but is not limited to the following: (1) the manner in which services are or will be provided and related data necessary for determining whether any persons are or will be denied such services on the basis of prohibited discrimination; (2) the population eligible to be served by race, color, national origin, sex, age, and handicap; (3) data regarding covered employment including use or planned use of bilingual public contact employees serving beneficiaries of the program where necessary to permit effective participation by beneficiary unable to speak or understand English; (4) the location of existing or proposed facilities connected with the program and related information adequate for determining whether the location has or will have the effect of unnecessarily denying access to any person on the basis of prohibited discrimination; (5) the present or proposed membership by race, color, national origin, sex, age, and handicap in any planning or advisory body which is an integral part of the program; and (6) assure compliance by recipients with laws cited in the first paragraph of this assurance.

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The Applicant agrees to submit requested data to the Department of Energy regarding programs and activities developed by the Applicant from the use of Federal assistance funds extended by the Department of Energy. Facilities of the Applicant (including the physical plants, buildings, or other structures) and all records, books, accounts, and other sources of information pertinent to the Applicants compliance with the civil rights laws shall be made available for inspection during normal business hours on request of an officer or employee of the Department of Energy specifically authorized to make such inspections. Instructions in this regard will be provided by the Directors Office of Equal Opportunity, U.S. Department of Energy.

This assurance is given in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts (excluding procurement contracts), property discounts, or other Federal assistance extended after the date hereto, to the Applicants by the Department of Energy, including installment payments on account after such data of application for Federal Assistance which are approved before such date. The Applicant recognizes and agrees that such Federal assistance will be extended in reliance upon the representations and agreements made in this assurance and that the United States shall have the right to seek judicial enforcement of this assurance. This assurance is binding on the Applicant, its successors, transferees, and assignees, as well as the persons whose signatures appear below and who are authorized to sign this assurance on behalf of the Applicant.

Applicant Certification

The Applicant certifies that it has complied, or that, within 90 days of the date of the grant, it will comply with all applicable requirements of 10 C.F.R. § 1040.5 (a copy will be furnished to the Applicant upon written request to DOE).

Designated Responsible Employee

	()
Name and Title (Printed or Typed)	Telephone Number

Signature	Date

	()
Applicant's Name	Telephone Number

Address	Date

Authorized Official:
President, Chief Executive Officer
or Authorized Designee

	()
Name and Title (Printed or Typed)	Telephone Number

	()
Signature	Date